

## EVALUATION OF THE GRANT PROGRAM FOR RURAL HEALTH CARE TRANSITION THIRD SEMI-ANNUAL PROGRESS REPORT

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#### EXECUTIVE SUMMARY

The Health Care Financing Administration (HCFA) was charged by Congress with implementing a program of Rural Health Care Transition Grants (Ornnibus Budget Reconciliation Act of 1987: P.L. 100-203) and expanding the program (Omnibus Budget Reconciliation Act of 1989: P.L. 101-239). The goal of this program is to assist small rural hospitals to increase their long term financial stability and management capacity.

Awards of up to 2 years duration and up to \$50,000 a year per hospital were made on September 15, 1989, to 181 hospitals, representing 184 grant awards. Additional awards of up to 3 years and up to \$50,000 a year per hospital were made on September 15, 1990, to 211 hospitals, representing 212 grant awards. Grants were awarded based on technical merit and with the goal of achieving geographic dispersion of the grant funds. There was \$8,254,442 appropriated for funding the first year of the 1989 grantees and \$16,798,351 appropriated for funding the second year of the 1989 grantees and the first year of the 1990 grantees.

The legislation mandated that the HCFA Administrator report to Congress every 6 months on the progress of the program. This is the third 6-month report. This report describes the management, staffing, services provided, and financial status of the 1989 grantees, and their progress after 1 year, based on background reports and monitoring reports submitted by the grantee hospitals covering the period March 1, 1990, through September 15, 1990, and information gathered during visits to 15 grantee hospitals. In addition, this report describes how the 1990 grantees were selected, the projects they will implement, and the areas in which they are located.

1989 Grantees. One year after the awards, 171 of the 181 hospitals that received grants are operating their grant projects as planned, while 5 have completed their projects. Five hospitals are no longer in the program because of voluntary withdrawal (3 hospitals), nonrenewal by HCFA (1 hospital), and facility closure (1 hospital).

Just over half of the projects are on schedule, and none of the projects that is behind schedule is in serious difficulty. Most projects include several activities and many grantees are further ahead with some activities than others. After 1 year, more than half of the projects including market analysis and planning have completed this component of their projects, and one third of the projects introducing a new outpatient service have done so successfully. The activities most likely to be behind schedule are construction and renovation, recruiting health care professionals, and introducing swing beds (all of which depend partly on persons or organizations outside of the hospital for completion).

The factors most affecting project success are the availability of funds (grant and other), cooperation with other providers or government agencies, dedication of hospital staff, and success in recruiting or retaining personnel. Conversely, problems arise when these factors are absent.

Hospitals submitting progress reports in time for inclusion in this report had spent two-thirds of their first year grant funds during that year. Of the grant funds that have been spent, 41 percent were spent on personnel, 23 percent on contracts, and 18 percent on capital expenditures. The majority of the hospitals that had spent less than one-half of their first year awards are behind schedule. HCFA has allowed hospitals to carry forward unspent first year grants into the second year. In addition, HCFA awarded \$7,408,702 new money to the 171 hospitals with grant projects that continue into the second year.

It is too early to tell how the grant program will affect access to care. Many hospitals have just finished the planning stages of their grants and are just beginning to act on the information learned. However, some programs have started to serve patients, providing local access to services that were previously unavailable. Other hospitals have recruited physicians who have begun to treat patients in the rural areas, again increasing access to health care. Whether these grant projects will actually affect the long run viability of the hospitals, and in turn affect access to health care in the long run, is still unknown.

1990 Applicants. In 1990, 502 applications were received from 481 hospitals, 202 fewer applications than in 1989. On September 15, 1990, HCFA awarded 212 grants to 211 hospitals for a total grant funding of \$9,389,649.

The types of projects proposed and the geographic distribution of applicants were rather different than in 1989, but the characteristics of the areas in which applicants and grantees are located were similar in 1989 and 1990.

Hospitals in 43 States applied for grants in 1990. Eligible hospitals in the North Central region had the highest application rate (38 percent) and those in the Northeastern region had the lowest application rate (17 percent). Iowa had the largest number of applicants (47) and the second highest application rate of any State (56 percent).

The areas in which the applicant hospitals are located are scarcely populated (averaging 22 persons per square mile), have a higher proportion of the elderly than the national average (15 percent), have populations that are 92 percent white, and annual per capita incomes of \$11,500. Fifty percent of the areas are designated as Primary Care Health Manpower Shortage Areas. The area characteristics of applicants and grantees are very similar.

<u>Comparison of 1989 and 1990 Grantees</u>. Compared to the 1989 grantees, the 1990 grantees are located in slightly less populated areas, and have smaller black populations. This is probably because there were far more applicants in 1990 from the North Central region and fewer from the South. The 1990 grantees are slightly smaller hospitals.

The predominant project objectives among 1990 grantees are recruiting (49 percent), developing a rural health network (37 percent), and management improvements and planning (32 percent), 9 percent of the hospitals applied for a grant to convert to a rural primary care hospital. In contrast, the predominant objectives of 1989 grantees were introducing a new outpatient service (70 percent), management improvements (35 percent) and recruiting health professionals (30 percent).

#### I. INTRODUCTION

## A. LEGISLATIVE HISTORY AND PURPOSE OF THE GRANT PROGRAM

Congressional concerns about the problems of rural hospitals and access to health care for the residents of rural areas led to the enactment of the Grant Program for Rural Health Care Transition. In the legislation, Congress mandated that the Health Care Financing Administration (HCFA) "establish a program of grants to assist eligible small rural hospitals and their communities in the planning and implementation of projects to modify the type and extent of services such hospitals provide in order to adjust for one or more of the following factors:

- (1) Changes in clinical practice patterns
- (2) Changes in service populations
- (3) Declining demand for acute-care inpatient hospital capacity
- (4) Declining ability to provide appropriate staffing for inpatient hospitals
- (5) Increasing demand for ambulatory and emergency services
- (6) Increasing demand for appropriate integration of community health services
- (7) The need for adequate access to emergency care and inpatient care in areas in which a number of underutilized hospital beds are being eliminated."1

<sup>&</sup>lt;sup>1</sup>Omnibus Budget Reconciliation Act of 1987 (P.L. 100-203), Section 4005(e).

The legislation further stipulates that "a grant may not exceed \$50,000 a year and may not exceed a term of two years." Funds may be spent for any expenses incurred in planning and implementing the project with two exceptions: no part of the grant funds may be expended to retire debt incurred before September 15, 1989; and, not more than one-third of the grant funds may be used for capital-related costs. The legislation mandated that grantees had to be non-Federal, nonproprietary, short-term, general acute care hospitals with fewer than 100 beds and furthermore they had to be paid as rural hospitals under Medicare's Prospective Payment System to be eligible for the program.

In the Omnibus Budget Reconciliation Act (OBRA) of 1989 (P.L. 101-239), Congress modified the Rural Health Care Transition Grant Program in two important ways. First, the maximum grant period was extended from 2 to 3 years. Second, hospitals that use the grant to convert to a rural primary care hospital are not limited to the one-third capital expenditure maximum. In addition, Congress provided \$17.8 million of additional funding for the program. This funding provided for the second year of the fiscal 1989 grants and the first year of the fiscal 1990 grants.

<sup>&</sup>lt;sup>2</sup>Ibid.

<sup>&</sup>lt;sup>3</sup>Date of grant award.

#### B. NUMBER AND CHARACTERISTICS OF GRANTEES

### 1. 1989 Grantees

On September 15, 1989, HCFA awarded 184 Rural Health Care Transition Grants to 181 hospitals. One year later 171 facilities are participating in the grant program.<sup>4</sup> The 1989 grantees are relatively small hospitals; nearly two- thirds have 50 or fewer licensed beds (compared to half the rural hospitals nationwide) and 21 percent have 25 or fewer licensed beds (compared to only 10 percent of rural hospitals nationwide).<sup>5</sup> (See Table I.1.) Low occupancy rates are common among rural hospitals. Nationwide in 1987, small rural hospitals had an average occupancy rate of 38 percent, and the smaller the hospital, the lower the occupancy.<sup>6,7</sup> Predictably, the 1989 grantees have even lower occupancy rates (31 percent on average). Almost 42 percent of the grantees had an occupancy rate of 25 percent or less during 1989, and almost 90 percent had an occupancy rate of less than 50 percent.

The smallest grantees have the lowest occupancy rates. Sixty-five percent of the hospitals with 25 or fewer beds have occupancy rates of 25 percent or less, while only

<sup>&</sup>lt;sup>4</sup>Three hospitals declined their grant funds, one hospital ceased operation as an acute care facility, one hospital terminated its own project, and one hospital was not renewed by HCFA for failure to comply with the grant terms and conditions.

<sup>5</sup>OTA-H-434, p. 118.

<sup>&</sup>lt;sup>6</sup>Small rural hospitals are defined as those with fewer than 100 beds in nonmetropolitan areas.

<sup>&</sup>lt;sup>7</sup>OTA-H-434, p. 118.

TABLE I.1

NUMBER AND CHARACTERISTICS OF GRANTEE HOSPITALS
1989 AND 1990

Characteristic	1989 Grants	1990 Grants
Number of Awards	184	212
Number of Consortia	11	16
Percent Distribution of Awards by Number of Licensed Hospital Beds		
1 to 25 Beds	21.4 %	18.5 %
26 to 50 Beds	43.4 %	51.7 %
51 to 75 Beds	14.5 %	17.1 %
76 to 100 Beds	20.8 %	12.7 %
Percent Distribution of Awards by Occupancy Rate		
< 25 Percent	41.9 %	36.7 %
26 to 50 Percent	47.7 %	51.2 %
51 to 75 Percent	10.5 %	11.6 %
> 75 Percent	0.0 %	0.5 %
Percent Distribution of Awards by Objectives <sup>a</sup>		
Enhance Emergency or Outpatient Services	70.3 %	23.7 %
Management Improvements or Market Analysis	34.6 %	31.6 %
Recruiting Health Professionals	30.2 %	48.6 %
Planning to Develop a Rural Health Network	25.8 %	36.8 %
Conversion, Construction	13.7 %	13.2 %
Inpatient Service Development	11.7 %	2.8 %
•		

TABLE L1 (continued)

Characteristic	1989 Grants	1990 Grants
Telecommunications Services to Rural Physicians	2.2 %	5.2 %
Planning to Convert to a Rural Primary Care Hospital	0.0 %	9.0 %

<sup>&</sup>lt;sup>a</sup>Percentages add to more than 100 because grantees may have multiple objectives.

12 percent with 76 or more beds have an occupancy rate this low. Conversely, only
6 percent of the hospitals with 25 beds or fewer have occupancy rates that exceed
50 percent, while 21 percent of hospitals with 76 or more beds have occupancy rates this
high.

The most frequent objective of the 1989 grantees is enhancing emergency or outpatient services (over 70 percent of the grantees). The second most frequent objective is making management improvements or performing market analysis. Recruiting health professionals is the third most popular project objective.

## 2. 1990 Grantees

On September 15, 1990, HCFA awarded an additional 212 grants to 211 hospitals.

One hospital declined its grant, leaving 210 hospitals to begin their grant projects in the fall of 1990.

Like the 1989 grantees, the 1990 grantees are small relative to rural hospitals nationwide, and they are also a little smaller on average than the 1989 grantees. Just over 18 percent have fewer than 25 licensed beds (compared to 10 percent nationwide and 21 percent of 1989 grantees) and 70 percent have fewer than 50 licensed beds (compared to 50 percent nationwide and 65 percent of 1989 grantees).

The occupancy rates of the 1990 grantees are also low and comparable to the 1989 grantees (an average of 33 percent). Just over 36 percent of the 1990 grantees had

occupancy rates of less than 25 percent in 1990, and 88 percent had occupancy rates of less than 50 percent.

One reason often cited for low occupancy rates is the lack of health care professionals in rural areas. Thus, it is not surprising that almost half of the 1990 grantees are recruiting health professionals; the most frequent project objective. The second most frequent project objective is to develop a rural health care network (37 percent compared to 26 percent among 1989 grantees). Just over 31 percent of the hospitals are pursuing management improvement or market analysis projects (about the same as the 1989 grantees). In 1990, a new project objective emerged—planning a conversion to a Rural Primary Care Hospital; nine percent of the 1990 grantees have this objective. Just under one fourth of the 1990 grantees are enhancing emergency and outpatient services, a major contrast to the 1989 grantees, among whom 70 percent have this objective. We do not know why there was such a radical change in this objective.

#### II. BACKGROUND ON 1989 GRANTEES

It is hypothesized that strongly managed and financially sound hospitals are more likely to succeed in their grant projects. Indeed, without a minimal level of managerial resources a grant project may be more of a burden than a help to a hospital. Those hospital characteristics that may explain the success of the projects are described in this chapter. It is too early to be definitive about which factors lead to successful projects. The representativeness of the grantees relative to rural hospitals nationwide is discussed because this will indicate the potential for replicating success in an expanded grant program. This chapter is based upon self-report data collected from 175 of the Rural Health Care Transition grantees receiving grants in 1989.

## A. MANAGEMENT CHARACTERISTICS

Hospital ownership and management may influence the success of a grant project. One important management variation is whether the hospital is owned by the local government (city, county, or district), or by a private, nonprofit organization. During periods of economic recession and tax revenue shortfalls, publicly-owned hospitals that receive support from local government may have cuts in their support. As a result, they may find it more difficult than private hospitals to implement projects, especially if the grant project is partly funded by local public financing. Perhaps more important, some publicly-owned

<sup>&</sup>lt;sup>1</sup>Because hospitals keep their records differently, some hospitals could not report all data elements. As a result, the number of respondents varies from table to table.

hospitals are required by local government statutes to treat all indigent and all county residents. In times of recession this type of regulation may affect financial status and in consequence progress on grant projects.

Just over half of the grantees are publicly-owned; 39 percent are district or county hospitals, 9 percent are city (or town) hospitals and almost 5 percent are other public hospitals, such as a nospital owned by a local hospital authority, and a hospital with taxing authority within the school district. (Table II.1). Nationally, 42 percent of rural hospitals are publicly-owned, 48 percent are private, nonprofit, and 10 percent are for-profit.<sup>2</sup> A higher proportion of Rural Health Care Transition grantees are publicly-owned than rural hospitals nationwide because a higher proportion of publicly-owned hospitals was eligible for the program. This is partly because for-profit hospitals were not eligible for the program are important is that rural hospitals with more than 100 beds were not eligible for the grant program and rural hospitals with more than 100 beds are predominately private, nonprofit facilities.<sup>3</sup>

Hospitals that are part of a multi-hospital system or are administered by a management company may have more management resources to draw upon, which may make it easier for them to run their grant projects. Given that nearly a quarter of the grantee hospitals

<sup>&</sup>lt;sup>2</sup>Office of Technology Assessment, 1990. Data from American Hospital Association's 1987 Annual Survey of Hospitals. Published in OTA-H-434, pg. 113.

<sup>&</sup>lt;sup>3</sup>OTA-H-434, pg. 113.

TABLE II.1

MANAGEMENT CHARACTERISTICS AT TIME OF AWARD: 1989 GRANTEES

Characteristic	Distribution
Percent Distribution by Ownership:	
City Government	9.1 %
County/District Government	39.4 %
State Government	0 %
Other Public	4.6 %
Private, Nonprofit	46.9 %
Percent of Hospitals in Structured Multi-Hospital Systems:	
Not-for-Profit	21.7 %
For Profit	1.1 %
Total	22.8 %
Percent of Hospitals with Outside Management Contract:	
Not-for-Profit	15.0 %
For Profit	12.7 %
Total	27.7 %
Number of Hospitals Reporting	175

NOTE: For-profit hospitals were not eligible for grants, but not-for-profit hospitals that are managed by for-profit organizations were eligible.

had a new hospital administrator in the first year of the grant, those with more managerial resources may maintain project progress despite administrative change.

Half of the grantee hospitals participate in multi-hospital systems or are managed under contract. Approximately 23 percent of the rural health grantees are part of multi-hospital systems, while 28 percent are operated under a management contract. Nationwide, by contrast, only 16 percent of the non-Federal, nonprofit rural hospitals under 100 beds are part of multi-hospital systems, and 19 percent of all rural hospitals are operated under a management contract.

The higher proportion of grantee hospitals with management affiliations probably results from the selection process. To obtain a grant, hospitals had to write a proposal describing the project the hospital would undertake. Hospitals with management affiliations have more management resources to draw upon for selecting grant projects and writing proposals that fulfilled the grantee selection criteria, which could have increased their chances of winning a grant.

## B. FINANCIAL CONDITION

Hospitals with stronger finances are more likely to operate their grant projects successfully. This is partly because financially sound hospitals are more likely to have funds

<sup>&</sup>lt;sup>4</sup>OTA-H-343, p. 134.

<sup>&</sup>lt;sup>5</sup>OTA-H-434, p. 113. This figure includes for-profit and rural hospitals with more than 100 beds.

other than the grant to support their projects, thus facilitating the projects. Moreover, the managers of financially weak hospitals may have little time to devote to their projects because of time spent on immediate financial problems.

The typical grantee had \$4.2 million in revenues in fiscal 1989. (See Table II.2.) The typical grantee made no money from operations in the year prior to the grant award (on evidence of zero operating margins). However, the median ratio of total liabilities to total assets is low (.49), suggesting that these hospitals typically have low debt. Thus, the typical grantee is neither earning a profit, nor on the brink of financial collapse.

Hospitals may qualify for special compensation status in the Medicare Prospective Payment System. Hospitals that qualify as Sole Community providers receive Medicare payment based on the greater of (1) the full Federal prospective payment rate or (2) an adjusted, hospital-specific cost from an updated base year (either 1982 or 1987). Hospitals that qualify as Medicare Dependent Hospitals (having 100 or fewer beds and were at least 60 percent Medicare dependent as measured by days or discharges in 1987) receive the same special payment as Sole Community Hospitals (except that they are subject to capital reduction). Hospitals with enhanced Medicare payment may have a better cash-flow and be in stronger financial position, and thus may achieve their project goals more easily.

A minority of the grantees have special compensation status. Just over 21 percent are Sole Community Hospitals and just over 6 percent are Medicare Dependent Hospitals. (See Table II.2.) One grantee is in Maryland, which has a special waiver status from

TABLE II.2

# METHOD OF MEDICARE PAYMENT AND FINANCIAL CHARACTERISTICS AT TIME OF AWARD: 1989 GRANTEES

Characteristic	Characteristic		
Total Liabilities: Total Assets (Median)	.49		
Operating Margin <sup>a</sup> (Median)	04		
Annual Revenues FY 1989 (Median)	\$4,229,361		
Number of Hospitals Reporting	171		
Percent Distribution of Grantees with Special Reimbursement Status			
Sole Community Hospital	21.1%		
Medicare Dependent Hospital	6.1%		

<sup>&</sup>lt;sup>a</sup>Defined as (Net Patient Service Revenue-Operating Costs)/Net Patient Service Revenue. Based on self report data from 160 hospitals.

the Prospective Payment System.<sup>6</sup> All other grantees are paid for Medicare services under the regular Prospective Payment System.

#### C. STAFFING

Hospital staffing appears to be a key to the success of many grant projects. A hospital with too few staff is unable to meet the area's health care needs (and as a result, will lose patients), is unable to broaden the services offered (that might attract more patients), and may have to devote excessive management time to recruiting (and have less time available for the grant).

The average 1989 grantee has two more physicians on staff than the average rural hospital with less than 100 beds, even though the typical grantee hospital is smaller. (See Chapter I.) The grantees averaged 10.4 physicians on regular staff, and 10.4 physicians on their courtesy staff in 1989. (See Table II.3). Nationwide, rural hospitals had 8.4 physicians on regular staff in 1987.7 Despite having above-average numbers of physicians, 56 percent of the rural grantees are recruiting physicians.

The grantees also have more nurses on staff than the average rural hospital. The grantees averaged 25.5 Registered Nurses (RNs) and 12.1 Licensed Practical Nurses (LPNs)

<sup>&</sup>lt;sup>6</sup>The hospitals in Maryland are paid through an all-payor hospital rate regulation system, in which each hospital is given an expenditure target. The hospital adjusts its charges monthly to reflect the volume of services provided.

<sup>&</sup>lt;sup>7</sup>This average includes only general/family practice, general internal medicine, pediatrics, obstetrics/gynecology, and general surgery; it does not include the few specialists on staff.

TABLE II.3

STAFFING AT TIME OF AWARD: 1989 GRANTEES

Staff Type	Average Number of FTE's	Average Number Vacancies Being Actively Recruited
Number of Physicians on Staff	10.4	1.2
Number of Physicians with Courtesy Admitting Privileges	10.4	N.A.
Nursing Staff		
RNs (Including Nurse Practitioners and Nurse Anesthetists)	25.5	3.0
LPNs	12.1	1.0
Aides and Orderlies	15.0	1.2
Physician Assistants	<1	<1

N.A. = Not Applicable

on staff,8 compared to 21.7 RNs and 10.65 LPNs nationwide.9 Despite the higher than average size of the nursing staff, over 78 percent of the grantees are recruiting RNs, and 42 percent are recruiting LPNs.

Physician assistants are a potential substitute for physicians and nurses in rural areas. Little is known about the number of physician assistants in rural areas, except that the proportion in hospital-based practice is increasing. Despite this trend, only 5 percent of the grantees have physician assistants on staff and 7 percent are actively recruiting a physician assistant (9 percent of hospitals are either recruiting or already have one or more physician assistants on staff).

### D. SERVICE AREA

Hospitals isolated from competition have a higher probability of retaining patients and maintaining their revenue base. Complementary health care providers enhance the ability of the hospital to provide services cost-effectively and, in turn, maintain the hospital's financial status.

The competitive level increases whenever the service areas of acute care hospitals overlap. Some grantees are in very competitive situations. The typical grantee reported it had one other acute care hospital within its (self-defined) primary service area.

 $<sup>^8\</sup>mbox{The}$  Registered Nurses figure includes Certified Registered Nurse Anesthetists and Nurse Practitioners.

<sup>&</sup>lt;sup>9</sup>OTA-H-434, p. 270.

<sup>&</sup>lt;sup>10</sup>OTA-H-434, p. 252.

I'wenty-seven percent of the grantees reported that more than half of the residents of their service area go elsewhere for services that the grantee provides. Such severe patient outmigration may be difficult to overcome or survive financially.

We adopt as another measure of competition the travel time to the nearest competitor. The median travel time to the nearest acute care hospital for the 1989 grantees was 40 minutes (see Table II.4). The shortest travel time reported was 5 minutes, while the longest was 5.5 hours. The national average travel time from rural hospitals to the nearest hospital is 45 minutes (for those hospitals that are located at least 25 miles away from the nearest competitor). The grantees and rural hospitals nationwide are thus similar in travel time to the nearest competitor. The grantees are rural hospitals nationwide are thus similar in travel time to the nearest competitor.

Difficulty accessing primary health care services may also hurt a hospital's financial viability. Residents may use the hospital's emergency room for primary care needs if alternatives are inaccessible, for example when physicians do not accept Medicaid patients. Because many third-party payers will not pay emergency room rates for a "clinic" visit, hospitals will be paid at a clinic rate, not an emergency room rate. In addition, residents may delay treatment for health problems, making the hospital's patients more severely ill. If severity of illness is inadequately reflected in the payment system, the hospital may be systematically under-compensated.

<sup>&</sup>lt;sup>11</sup>The hospital reporting the 5.5 hour travel time is 125 miles from the nearest hospital.
<sup>12</sup>OTA-H-434, p. 149.

TABLE II.4

SERVICE AREA CHARACTERISTICS AT TIME OF AWARD: 1989 GRANTEES

Characteristic	Median or Distribution
Travel time to nearest acute care hospital (in minutes) <sup>1</sup>	40
Travel time to nearest tertiary care hospital (in minutes) <sup>1</sup>	67
Travel time to nearest urban hospital (in minutes) <sup>1</sup>	75
Percent of patients in service area that go to another hospital for services	
Less than 10 percent	9.3 %
• 10 - 24 percent	34.3 %
• 25 - 49 percent	29.1 %
• 50 - 74 percent	23.8 %
• 75 - 100 percent	3.5 %
Number of providers in service area	
Hospitals (acute care)	1
<ul> <li>Nursing homes</li> </ul>	2
<ul> <li>Home health agencies</li> </ul>	1
Rural health clinics	0
Public health clinics	1
<ul> <li>Community health centers</li> </ul>	0
Migrant health centers	0
Percent with problems accessing nursing home beds	
Always	10.6 %
Most of the time	19.3 %
Occasionally	53.8 %
Never	16.4 %

TABLE II.4 (continued)

Characteristic	Median or Distribution
Problems accessing home health services	
Percent with problems accessing skilled care services	22.4 %
Percent with problems accessing personal care/homemaker services	40.1 %
Medical Transportation	
Percent with a public bus or van that transports patients to and from hospital	30.3 %
Percent with routine medical transportation system	
Without restrictions With restrictions	13.2 % 35.1 %

<sup>&</sup>lt;sup>1</sup>Travel time by automobile. Two hospitals located on islands not included.

The typical grantee has at least one public health clinic operating in its service area. Thirty-four percent have a rural health clinic, 18 percent have a community health center, and 3 percent have a migrant health center (see Table II.4). In total, 76 percent of the grantees have at least one clinic (either public health, rural health, community health or migrant health) operating in their primary service area. We do not know how many of these clinics are competitive or how many are complementary.

Availability of complementary health care services will affect the overall success of the grant projects. Insufficient post-hospital care services can hurt a hospital's financial viability. Hospital stays will be longer if post-hospital services cannot be arranged, and under the Medicare Prospective Payment System, hospitals must absorb these additional costs.

Some grantees have problems accessing post-hospital care services. The typical grantee hospital has two nursing homes in its service area, but 30 percent report problems discharging patients to nursing homes (see Table II.4). The typical grantee has one home health agency in its service area, but 22 percent report problems accessing skilled care home health services and 40 percent report problems accessing personal care/homemaker services.

Just over 60 percent of the grantees have some type of routine transportation system available for health care services. Public transportation systems are available in 30.3 percent of the grantee service areas, while 48.3 percent have a routine medical transportation service. In most cases, these routine medical transportation services, often provided by Area Agencies on Aging, are restricted to the elderly, the handicapped, or the poor.

### E. HOSPITAL SERVICES

Rural hospitals experienced a steady decline in inpatient admissions in the 1980s, and in consequence had reduced occupancy rates and lower revenues. Many hospitals have introduced new outpatient services to offset the reduced inpatient revenues. Consistent with this trend, as we showed in Chapter I, 70 percent of the 1989 grantees are using their grants to enhance outpatient and emergency services, with the goal of improving their financial viability.

The average grantee admitted 1,327 inpatients in 1989. Approximately 43 percent were Medicare patients, 14 percent were Medicaid patients, 35 percent had some sort of private insurance, and 9 percent were private pay or charity care patients (see Table II.5).<sup>13</sup>

The grantee hospitals averaged 15,069 outpatient visits and 4,990 emergency room visits in 1989, a total of 20,059 ambulatory visits. Nationally in 1987, rural hospitals averaged 11,515 outpatient visits and 6,567 emergency room visits, a total of 18,082 visits.<sup>14</sup> The greater number of ambulatory visits in grantee hospitals may reflect the growing demand for outpatient care from 1987 to 1989, as well as the grantee hospitals' willingness to provide those services.

<sup>&</sup>lt;sup>13</sup>Some rural hospitals only keep tabulations on Medicare and Medicaid admissions. For hospitals that do not distinguish among other payors, we included all other payors under private insurance. As a result, the number of private pay and charity care patients may be underestimated in Table II.5.

<sup>&</sup>lt;sup>14</sup><u>Hospital Statistics, Data from the American Hospital Association 1987 Annual Survey,</u> pg. 150. Note that this includes all rural hospitals, including those with more than 100 beds.

TABLE II.5
SERVICES PROVIDED IN 1989: 1989 GRANTEES

Characteristic	Mean or Distribution
Number of Admissions in 1989	
Medicare	569
Medicaid	183
Blue Cross/Blue Shield <sup>a</sup>	120
Other Private Insurance <sup>a</sup>	342
Private Pay <sup>a</sup>	94
No Payment <sup>a</sup>	19
TOTAL	1,327
Number of Outpatient Visits 1989	15,069
Number of Emergency Room Visits 1989	4,990
Emergency Room Always Open	97 %
ER Always Staffed by a Physician	48 %
Percent with Swing Beds	67 %

<sup>&</sup>lt;sup>a</sup>In some cases, hospitals only kept separate records of Medicare and Medicaid admissions. For these observations, the total number of non-Medicare and non-Medicaid admissions were added into the Other Private Insurance category.

The grantee hospitals are more likely to operate swing bed units than rural hospitals nationwide. Two-thirds of the grantees operated swing beds in 1989, while only 47 percent of all eligible hospitals were participating in the swing bed program in 1987.<sup>15</sup> Two factors may explain this difference. First, a higher proportion of grantees have fewer than 50 beds (these smaller hospitals do not have to meet the special conditions intended to minimize competition with nursing homes that are imposed for hospitals with more than 49 beds). <sup>16</sup> These special conditions may hinder hospital participation. Second, it could reflect efforts by the grantees to diversify their services.

# F. POTENTIAL FOR CONVERSION, CONSOLIDATION, AND CLOSURE

Two grantees have closed their acute care services and are using their grant funds for converting the facility to other uses.<sup>17</sup> Three other grantees that have closed their acute care services are using their grant funds for purposes such as strategic planning. The remaining hospitals are full service facilities. Those among them that are still considering closure may have poor staff morale or severe resource constraints which inhibit their projects.

<sup>&</sup>lt;sup>15</sup>OTA-H-434, p. 164.

<sup>16</sup>Public Law 100-203 allows all rural hospitals under 100 beds to participate in the Medicare swing-bed program. Hospitals with more than 49 beds must meet special conditions. These special conditions include the following: transfer extended-care patients to a skilled nursing bed in the region within 5 days unless such a bed is unavailable or a physician deems it medically inappropriate.

<sup>&</sup>lt;sup>17</sup>One other facility closed and has ceased its grant project.

Fifteen percent of the grantees are seriously or moderately considering closure, suggesting that some grantees may find it hard to reach their project goals (Table II.6). Just over 17 percent of the grantees are considering converting to an alternative type of facility. Another 14 percent are considering consolidating with one or more acute care hospitals.

TABLE II.6

CONSIDERATION OF CONVERSION, CONSOLIDATION, OR CLOSURE: 1989 GRANTEES

Percentage of Hospitals that have Considered:		
Conversion to an alternative type of health care facility		
Seriously	8.0 %	
Moderately	9.2 %	
Consolidation with one or more acute care hospitals		
Seriously	5.4 %	
Moderately	8.3 %	
Closure		
Seriously	6.5 %	
Moderately	8.3 %	

NOTE: The hospitals that closed are included as "seriously considered closure."

#### III. PROGRESS OF 1989 GRANTEES

In OBRA 1987, Congress mandated that HCFA report to Congress on the progress of the Rural Health Care Transition grantees every 6 months. A monitoring process was designed to ensure that grant funds were expended in a manner consistent with achieving the project goals and in accordance with regulations and to inform both HCFA and the Congress on the use of grant funds under the program and on the grantees' progress towards meeting their goals.

The monitoring process incorporates two activities. First, grantees must submit a report every 6 months that describes progress and documents grant expenditures. Second, site visits are being made to 50 of the 1989 grantees, 15 of which were completed before this report was prepared. These site visits allow progress on the project to be verified as well as providing an opportunity to review financial records (see Chapter IV).

Under the terms and conditions of the grant awards, grantees are required to report the amount of grant funds spent and the progress made on their projects every 6 months. The second report, which covered the period March 1, 1990, through September 30, 1990, was due on October 26. Of the 179 hospitals that accepted grants, 133 completed reports in time to be processed for this Congressional report. The information presented in this chapter is based upon the self-reported progress of these 133 grantees.

<sup>&</sup>lt;sup>1</sup>Two hospitals that terminated the grant program during the period are included in this reporting period. Since the report was prepared, 177 monitoring reports were received.

Overall, the hospitals made solid progress in their first year. The majority of the grantees are on schedule and a few have completed their projects. Factors that have contributed to success are the availability of financial resources, cooperation with other providers, dedication of hospital staff, and successful recruitment. The primary reason that projects have fallen behind schedule is inability to recruit health care professionals. The grantees spent most of their first year grant funds on personnel, contracts, and capital.

## A. ACHIEVEMENTS

### 1. Progress Relative to Schedule

After 1 year, 4 percent of the grantees have completed their projects, 54 percent are on schedule, and 43 percent are behind schedule.<sup>2</sup> Only one project is ahead of schedule with respect to all its activities.

Each grant project may have multiple activities, some of which are behind schedule while others are on or ahead of schedule or completed. The project activity that has by far the highest completion rate is planning and market analysis. Fifty-six percent of the grantees doing planning have completed this objective (see Table III.1). This is as expected because at the end of the first 6 months, we found that hospitals with planning grants were the most

<sup>&</sup>lt;sup>2</sup>One hospital that voluntarily terminated its grant is included as completed in the following discussion and tables.

TABLE III.1

DISTRIBUTION OF PROJECT TIMELINESS BY WHO DIRECTS PROJECT AND PROJECT OBJECTIVE: 1989 GRANTEES

Characteristic	Total	Ahead of Schedule	On Schedule	Behind Schedule by More than One Month	Completed
Project Objective					
Recruiting	53	1 %	57 %	42 %	0 %
Construction or Renovation	37	0 %	46 %	54 %	0 %
Planning or Market Analysis	55	0 %	38 %	5 %	56 %
Equipment Purchase	41	0 %	73 %	27 %	0 %
Training or Staff Development	65	0 %	74 %	26 %	0 %
Education, Prevention, or Wellness Programs	48	2 %	83 %	8 %	6 %
Inpatient or Hospice Service	23	0 %	52 %	13 %	35 %
Outpatient Service	36	6 %	42 %	19 %	33 %
Clinic	23	4 %	40 %	17 %	40 %
Emergency Medical Services	11	0 %	36 %	27 %	36 %
Swing Beds	5	0 %	20 %	40 %	40 %
Other Health Service	9	0 %	22 %	22 %	56 %
Rural Health Network	18	6 %	61 %	33 %	0 %
Other	24	4 %	58 %	38 %	0 %
Vho Directa Project?					
Hospital Administrator	76	0 %	55 %	43 %	1 %
Another Staff Member or Outside Consultant	51	2 %	43 %	47 %	8 %
Multiple Project Directors	5	0 %	100 %	0 %	0 %
Total	132 a	<1 %	54 %	43 %	4 %

NOTE: Totals may not add to 100 percent due to rounding error.

<sup>&</sup>lt;sup>a</sup>The grant that was not renewed by HCFA did not provide information on the project director.

likely to be ahead of schedule. Projects that planned to introduce a new service also had a high completion rate. Between 33 and 56 percent of the projects introducing new services had introduced the service within the first grant year. Equipment purchases, staff training, and wellness program development are more likely activities to be on schedule (73 percent or more). Such activities do not usually require outside approval and may be implemented using existing staff.

Projects involving construction or renovation are the most likely to be delayed;

54 percent are behind schedule at the end of the first year. The primary reason that
construction and renovation projects fall behind schedule is that many hospitals anticipated
receiving funding from nongrant sources to finance this aspect of their project but have not
successfully obtained the funding. Projects that involve recruiting health professionals are
also likely to be delayed; 42 percent of the grantees are behind schedule in meeting
recruiting objectives. The primary reason that recruiting projects are behind is because the
hospitals have not been able to identify appropriate personnel.<sup>3</sup>

Just as we found 6 months ago, there is a correlation between being on schedule and the position of the person administering the project. Fewer of the projects directed by hospital administrators are behind schedule (43 percent), than those directed by other staff members or consultants (47 percent). Five projects with multiple project directors are all on schedule.

<sup>&</sup>lt;sup>3</sup>Delays in approval have also delayed 2 of the 5 swing bed projects.

### 2. Projects Completed and Terminated

At the end of the first year, one project was completed and three projects were terminated. The completed project was the installation of a teleradiology system by a consortium of four hospitals. The consortium hospitals attribute the success of the project to the consortium coordinator, who has promoted administrator and physician support for and participation in the project.

Two of the three terminated projects did so in the second 6-month period. Both these projects were recruiting health professionals. One hospital that terminated voluntarily was attempting to recruit a general surgeon and a physical therapist. The hospital actually recruited the physical therapist, but the therapist only remained in the community a few months. The hospital felt it would be better to return unspent grant funds than to continue with the recruiting project. The hospital that was not renewed by HCFA for a second year of funding because it did not comply with the reporting requirements of the grant was recruiting physicians. The hospital had physicians interested in the area but had not successfully recruited any at the time of termination.

### 3. Operational Successes and Difficulties

<u>Successes</u>. Hospitals that achieved their first year goals cited the following contributory factors:

- · Availability of financial resources (cited by 58 percent)
- Cooperation with a government agency or another provider (cited by 51 percent)

- Dedication of the hospital staff (cited by 45 percent)
- Success in recruiting and/or retention of personnel (cited by 41 percent)

The financial resources provided by the grant are cited by many grantees as the primary reason for the success of the projects. The grants have provided some hospitals with funds to undertake projects that otherwise would not have been accomplished, and the hospitals report that there have been positive results from these projects. For example, grant funds allowed hospitals to use outside consultants for management tasks that otherwise would have been performed by hospital staff who might not have sufficient time or experience. The hospital administrators indicated that they have learned many valuable lessons from these consultants.

Hospitals have also been successful in their projects due to help from other organizations. Consortium coordination was cited as the primary reason that a teleradiology program was able to overcome preliminary physician opposition and be completed on schedule. Biweekly meetings with construction personnel have allowed another hospital to anticipate and prevent problems and keep its project on schedule. Other hospitals attribute their success to the Federal Government; they state that the grant program's reporting requirements are not burdensome, which allows them to concentrate on running their projects instead of writing innumerable reports.

The grantees have also cited staff dedication as a factor in their success. One hospital noted that the project has been an extra chore for the hospital employees, but they have

supported it in many ways including making referrals to the Lifeline program. Another hospital cited the dedication of their Director of Gerontological Services, who was able to obtain support from local professionals, churches, and area support agencies for the grant project, which in turn has led to local acceptance and utilization.

The hospitals that have recruited or retained health care providers often cited their success in these endeavors as a key reason for their success in implementing their grant project. One hospital stated that since the recruited physician's arrival, nonemergency visits to the emergency room have decreased, saving tax and insurance dollars. Another hospital reported that the success of its ventilator dependency unit is due to the successful recruitment of respiratory therapists. A registered nurse advisor at four local community colleges, who is sponsored by a hospital consortium, has recruited 12 students into a Licensed Vocational Nurse-Registered Nurse program. These students have signed contracts with the consortium hospitals to do clinical training at the hospitals, providing the hospitals with needed nursing personnel.

<u>Difficulties</u>. While many hospitals noted factors contributing to success, problems have also been encountered. The most frequent problem is the lack of success in recruiting or retaining personnel. In contrast to the 41 percent that cite it as the reason for their success, 35 percent of the hospitals cited problems recruiting or retaining personnel as the primary hindrance to their project's progress. In addition, 16 percent of the hospitals cite lack of

personnel within the hospital as a problem.<sup>4</sup> These hospitals perceive staffing to be a major factor affecting the success of the grant program.

The problem described by grantee hospitals is that a limited number of health professionals are willing to practice in rural areas. Furthermore, rural areas offer less lucrative financial packages than those offered in other areas. This frustrates recruiting efforts, and hospitals have had to manage with fewer staff in order to keep their projects operating.

The lack of health care professionals is also slowing project progress. One consortium of hospitals that was formed to develop a rural hospital staffing pool has found that the departments at the hospitals are too small to spare employees who have volunteered to participate. High staff turnover at some grantee hospitals has also hindered progress. For example, one hospital reported that in a department of nine employees, there were five resignations, two employees placed on extended leaves due to illness, and seven new hires in 6 months. This level of turnover absorbs a great deal of the administrative staff's time and prohibits them from concentrating on their project.

Twenty-one percent of the hospitals indicated that coordination problems were hindering their projects. One hospital which planned to introduce a subsidized day care program has met opposition from local day-care-in-the-home providers who are concerned

<sup>&</sup>lt;sup>4</sup>Problems with recruitment and retention are defined as a shortage of staff in positions which the hospital is recruiting for. Lack of personnel is defined as a staff shortage that the hospital is not recruiting for.

that the hospital program will compete unfairly with them. Another hospital that is recruiting physicians to the area has had difficulties because the only physician in the area is opposed to bringing new physicians into the area. A third hospital, which is developing an outpatient cardiopulmonary rehabilitation center, has found that local physicians resist admitting patients because the physicians fear losing their patients to physicians associated with the project.

Nineteen percent of the hospitals indicated that financial problems have thwarted their project's progress. One hospital that provides an outreach coordinator to visit the home to help organize post-hospital care services has had to cut services to the most remote areas because of the increase in the cost of gasoline. Another hospital that opened a cardiac rehabilitation program found that the HMOs in the area reimburse inadequately for the service. Some hospitals undertaking construction and renovation projects have had difficulty obtaining debt financing.

### B. CHANGES IN SCOPE

Changes in grant project scope, defined as a major change in the goals of a grant project (such as a change from adding an inpatient service to planning for conversion to a primary care facility), require HCFA approval. None of 1989 grantees reported changes in scope for the second 6-month period, although a number have made minor modifications in their projects. Typically, grantees that modified their projects learned during the planning stage that certain aspects of the projects they intended to pursue are either not needed or

not economically feasible. As a result, they are pursuing aspects of the project that are needed and economically feasible. For example, a hospital was intending both to recruit physicians and to develop a routine care transportation system. A survey of the community, however, found that the community did not need transportation, but that more physicians were desired. As a result, the hospital is concentrating its efforts on physician recruitment.

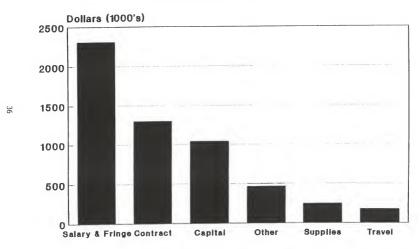
Other hospitals have made project modifications because the circumstances in their area have changed. For example, one hospital had intended to increase service capacity in accordance with the planned expansion of a local air force base. However, this base is now targeted for closure, so the hospital is holding off expansion plans until a definitive decision about the future of the base is made.

### C. EXPENDITURES

HCFA awarded \$8,254,442 in first year Rural Health Care Transition grants to 181 hospitals in September 1989. Three hospitals declined their grants, and three left the program, including one hospital that closed. This decreased the obligated grant funds to \$8,032,708. At the end of the first year of operation, \$5,523,127 had been spent by the 133 reporting hospitals, accounting for 68 percent of the fiscal year 1989 allotment. In August of 1990, HCFA awarded \$7,408,072 in continuation grants to 171 hospitals, increasing the total amount of obligated funding for 1989 grantees to \$15,490,780.

Figure III.1 shows the categories of grant expenditures in the first year. Eighty-three percent of the grant expenditures fell into three categories:

Figure III.1
Total Expenditures after Twelve Months
by Category: 1989 Grantees



Personnel: \$2,305,047 (41 percent)

• Contracts: \$1,293,465 (23 percent)

Capital: \$1,035,917 (18 percent)

This distribution of expenditures has changed since 6 months ago. At the end of the first 6 months, capital expenditures were relatively higher (29 percent), and the personnel and contract expenditures were relatively lower (37 and 16 percent, respectively.) There are two reasons for the shift: first, project expenditures for equipment generally proceeded on time, and these expenditures were more likely to be scheduled in the first 6 months of the project. Second, more hospitals were successful in their recruiting efforts over the past 6 months, so more expenditures were made on personnel.

Project objectives influence the categories of grant expenditure. Projects whose objectives include management improvements and market analysis have the highest average expenditures on contracts (\$17,733), while hospitals that are converting to another type of facility have the highest average expenditures on salaries (\$22,347). Telecommunication projects to rural physicians have the highest average expenditure on capital equipment (\$21,828). On a much lesser scale, projects to recruit health care providers have the highest average travel expenses (\$1,303).

The majority of the grantees spent more than 75 percent of their first year allotment. (See Figure III.2.) At the other extreme, 4 percent spent less than 25 percent of their

tirst year grant funds, because they are behind schedule with all aspects of their project. Table III.2 shows the distribution of grant funds spent relative to project timeliness. All five of the grantees that spent less than 25 percent of the first year funds and 88 percent of the grantees that spent between 25 and 50 percent are behind schedule. Lack of success in recruitment is the most common reason that these grantees are so far behind. Three of the five projects that have spent less than 25 percent of their funds are physician and physician assistant recruitment projects that have not yet succeeded in recruiting. The other two projects are a hospital network that is taking longer than anticipated to implement, and a project that has delayed its equipment purchase until it can locate a source of good used equipment.

Figure III.2
Percentage of First Year Funding Spent
After Twelve Months: 1989 Grantees

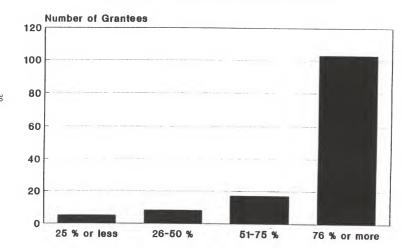


TABLE III.2
PERCENTAGE OF GRANT FUNDS SPENT BY PROJECT TIMELINESS: 1989 GRANTEES

Percent of First Year Grant Funds Spent After One Year	Total Number	Ahead of Schedule	On Schedule	Behind Schedule by More Than One Month	Completed
25 percent or less	5	0.0 %	0.0 %	100.0 %	0.0 %
26 - 50 percent	8	0.0 %	13.0 %	88.0 %	0.0 %
51 - 75 percent	17	0.0 %	53.0 %	47.0 %	0.0 %
Greater than 75 percent	103	.01 %	58.0 %	36.0 %	5.0 %
TOTAL	133	.001 %	53.0 %	43.0 %	4.0 %

NOTE: Totals may not add to 100 percent due to rounding error.

# IV. CASE STUDIES OF 1989 GRANTEES

Visiting the grantee hospitals is a way to monitor grantee progress and to evaluate the factors that lead either to grant projects being implemented successfully or to delays and failures. The 1989 grantees will be visited extensively over the 2 years of their projects. Twenty grantees are being visited during the first 15 months of their 2-year projects. Thirty grantees will be visited during the last 9 months including repeat visits to 10 grantees visited in the first 15 months (and telephone followup of the 10 remaining sites visited in the first 15 months). Grantees to be visited are being selected from all four geographic regions, in proportion to the number of grantees in each. They are also being selected to represent a range of project objectives, different hospital management arrangements, and varying success at implementing the planned project (based on self report).

Fifteen of the first-year visits had taken place by November 16 when this report was prepared. During each visit, key hospital and grant project staff were interviewed about the hospital service area, finances, staffing, management, and problems the hospital faces. The same staff were also asked about the grant project: the original application, progress and problems since the grant award, and effects of the grant on the hospital, community, and other providers. Other providers in the community were also interviewed to get an outsider's perspective on the hospital. This chapter discusses the findings of these site visits, focusing

<sup>&</sup>lt;sup>1</sup>Two of these sites were visited early in the project; they were also described in the previous report to Congress.

on hospital characteristics, grant project objectives and implementation, project successes and problems, and the impacts of the grant projects on the hospitals and their areas. The chapter closes with the results of the on-site financial record review.

### A. HOSPITAL CHARACTERISTICS

Of the 15 grantee projects visited so far, one is in the Northeast region, 8 are in the North Central region, 4 are in the South, and 2 are in the West (the North Central is relatively over-represented since visits to hospitals in northern latitudes were scheduled earlier in the fall than visits to southern latitudes). One consortium of 3 grantees was visited giving a total of 17 grantees visited, of which 16 are acute care hospitals.<sup>2</sup>

Eight of the 16 hospitals visited are publicly owned and 8 are privately owned. Five of the eight public hospitals are managed independently while three are managed under a contract with an outside organization. Among the eight privately owned hospitals, three are managed independently while four belong to multi-hospital systems and one is managed under a contract.

As required by the legislation, the grantees were restricted to small (less than 100 bed) rural hospitals. Those visited vary in bed size, distance to the nearest large city, and distance to another hospital. The visited grantees range in size from 8 to 102 staffed beds (18 to 130

<sup>&</sup>lt;sup>2</sup>The consortium project had three facilities, of which two were hospitals with attached nursing homes and one was a nursing home, the hospital portion of which had closed after the grant was applied for.

licensed beds), with 14 having fewer than 50 staffed beds.<sup>3</sup> Indeed, some grantees had down-sized to fewer than 50 beds in order to qualify for swing beds without extensive conditions; 9 of the 14 hospitals with fewer than 50 beds had swing beds. Consistent with their being rural hospitals, the median travel time to the nearest tertiary care hospital is just over 1 hour (range of 20 minutes to 5.5 hours). However, the median travel time to the nearest acute care hospital is only 30 minutes (range of 20 minutes to 5.5 hours).

We wanted to know whether problems facing hospital management had impeded progress with the grant projects. Because these rural hospitals are small, changes, such as the loss or gain of only one admitting physician, may have a major effect upon the hospital.

When asked to describe the largest recent management problem they had dealt with, administrators, board members, and chief financial officers mentioned leadership problems, finances and resulting staffing and salary problems, space problems, and the burden of planning for change. Two hospital boards had fired an unacceptable administrator within the last 3 years and were still overcoming the problems created by the previous administration. Two hospitals had either a part-time or an interim administrator that impinged on leadership. Financial difficulties, large-scale layoffs, or inequitable staff salaries and wages were problems singled out by eight hospitals as current or recent problems. Physician recruitment or relations with local physicians was mentioned as the biggest problem

<sup>&</sup>lt;sup>3</sup>The hospital with more than 100 beds included 19 psychiatric unit beds which are excluded when program eligibility is determined. The number of licensed non-psychiatric beds is 111, and the number of staffed non-psychiatric beds is 83.

by four hospitals. Developing a strategic plan and diversifying services was mentioned by two hospitals. The administrator at one hospital indicated that his largest problem was that the board is heavily involved in day-to-day management rather than policy. Two administrators mentioned lack of space to introduce new services as a major problem.

Even when not mentioned as the primary management problem, physician recruitment or difficulties resulting from loss of physicians were noted recurrently as problems. Although physician recruitment was mentioned as the principal problem at only 4 hospitals, 10 hospitals were actively recruiting physicians or assisting a local practice to recruit. Three hospitals viewed their financial viability as being endangered by the recent loss of one or more admitting physicians.

The financial soundness of these hospitals varies. Five of the hospitals had losses in the two previous fiscal years, and two of these were using lines of credit extensively to meet the payroll. These five hospitals appear to be in poor financial shape, with long-term problems. Three other hospitals had losses in 1989 but appeared to have overcome the problems that resulted in the losses. The remaining nine hospitals appear to be in sound financial condition. One grantee had closed as a hospital (after applying for the grant) as a result of losses of over \$2 million.

The factors that result in financial difficulties (and closure) include small size and low occupancy rates, often resulting from failure to recruit or loss of a physician. Four of the five hospitals in poor financial condition had occupancy rates under 23 percent, one as low as 6 percent. Occupancy rates of this order were also seen in two other hospitals, one of

which had tinancial losses in one of the two previous years, but had since recruited a physician, and one of which had lost three physicians during the grant's first year. Physician recruitment and retention is the key to higher occupancy rates and financial soundness.

# B. PROJECT OBJECTIVES AND IMPLEMENTATION

The objectives of the 15 visited projects, like those of the grantee projects in general, are diverse, and some projects have multiple objectives. The objectives of the 15 projects include strategic and individual service planning (four projects), recruiting physicians (three projects), enhancing existing or adding new inpatient services (four projects), and enhancing or adding new outpatient services (eight projects). The objectives of these projects, their geographic distribution, and the hospital ownership are shown in Table IV.1.

It would not have been possible for most of the grantees we visited to have implemented their projects had the grant program not been developed. Although many of the grantees had conceived of their projects before the grant program was announced, and two had included them in long term strategic plans, the resources for implementing the projects were not available. Two hospitals had projects underway that the grant funds were used to augment: a psychiatric inpatient service and a planning project for a home health agency.

TABLE IV.1 NUMBERS AND CHARACTERISTICS OF 1989 GRANTEES VISITED

	Region						
Characteristic	Northeast	North Central	South	West			
Number of Individual Hospital Grantees Visited	1	7	4	2			
Number of Consortium Hospital Grantees Visited	0	3	0	0			
Publicly Owned	0	3	3	2			
Privately Owned	1	4	1	0			
Objectives	Ventilator     Program <sup>b</sup>	Planning Home Care     and Assisted     Living Complex	Recruiting Physicians, Enhancing Emergency Room Services	Advanced Life     Transportation System			
		<ol> <li>Inpatient Psychiatric Service</li> </ol>	Oncology Clinic and Hospice Program	Conversion of Beds to Long Term Care			
		Recruiting Primary Care     Physicians	3. Rural Health Clinic				
		4. Strategic Planning	4. Multiple programs <sup>b</sup>				
		5. Strategic Planning <sup>a</sup>					
		<ol> <li>Outpatient Mental Health Services</li> </ol>					
		<ol> <li>Physician and Nurse Reimbursement, Adult and Child Day Care</li> </ol>					
		<ol> <li>Inpatient Psychiatric and Outpatient Rehab. Services and Wellness</li> </ol>					

NOTES: a. A consortium of three hospitals. b. Discussed in last report.

c. Five additional visits will be made during 1990:

North Central: 1 visit (Cardiac Risk Prevention)

South: 3 visits (Enhance Emergency Room Services) (Medical Transportation and Lifeline Services)

(Recruiting Physicians)

West: 1 visit (Conversion to Primary Care Facility)

# 1. Hospital and Project Management: Role in Getting Started

As we had expected, hospitals with current management problems (such as lack of continuity in the hospital administrator) were more likely to have severe delays or other problems with their projects during the first year. We would designate five of the visited grantees as having current management problems, and all of these had delays in getting their projects started, even though three of them have since caught up. Of the 10 projects which do not have current management problems, 4 are on schedule with all aspects of their projects and none have serious delays in any component.

Having a coordinator was generally the key to projects getting underway. In order to implement their projects, all but one of the grantees had recruited (or assigned a current staff member to be) the coordinator or project director. For example, the first activity of the consortium strategic planning project was to hire a coordinator, who then hired community liaisons and began a needs assessment process. Similarly, the other strategic planning project attributed a smooth start to an efficient coordinator. The outpatient oncology unit and the Rural Health Clinic projects at two of the sites visited were both delayed until a suitable coordinator was found. Two projects had lost their coordinators. One of these hospitals was able to secure a replacement, although no progress on the project (day care) was made while there was no coordinator. The other hospital had not been able

<sup>4</sup>We defined a current management problem as one in which there was a new administrator in the last 12 months, an interim administrator, or a part-time administrator, or one in which the administrator said that his managers were lacking in management experience or ability.

to replace the coordinator, and work had come to a standstill, because the administrator was too busy with regular duties to attend to the grant project.

Belonging to a multi-hospital system was important for several grantees. The grant proposals were prepared and submitted by system staff for two projects, while another grantee had been strongly encouraged by the managing company to apply for a grant. The system's importance in supporting and implementing a strategic planning project was stressed by the three consortium grantee administrators.

### 2. Community Support

There appears to be a high level of correlation between community support for and hospital interaction with the community and the level of respect for and use of the hospital by the community. The amount of mutual support varied a great deal. Five of the eight publicly owned hospitals receive financial support from local government. Four of the five publicly owned and managed hospitals receive funding from local taxes (and the fifth is eligible for funding from the local tax base but has been able to maintain financial independence since its establishment in 1935). Two communities support their hospitals from a levy on assessed property value (\$.17 and \$.50 per \$1,000). Another community supports its hospital through a one-quarter percent sales tax levied in the community (which raises about \$350,000 annually). Another hospital receives a lump sum from the county of about \$600,000 per year for capital expenditures. Among the three publicly owned hospitals that are managed under contract, one receives support from a property tax levy of

\$.27 per \$1,000 of assessed property value. The other two receive no financial support (and one was refused permission to float a bond issue).

All hospitals have an auxiliary which provides volunteer services in the hospital. Private financial support of the hospital by the community is common (i.e., other than from local taxes). Seven grantees mentioned having fund-raising foundations (six of these grantees were privately owned) and two more mentioned recent or current building and equipment fund drives (one initiated by the employees). Other hospitals received unsolicited donations but had no fund drives. The scale of these foundations, fund drives, and donations varies widely. Two privately owned hospitals mentioned recent fund drives that had raised more than \$1 million. Most fund drives and donations were in the range of \$25,000 to \$100,000.

The extent of hospital support of and communication with the community varied, though most of the hospitals provided health fairs and free screening tests (such as blood pressure and cholesterol), which required hospital staff to donate their time. Some hospitals stressed the importance of communicating to the community the services that the hospital provides, to encourage use of the hospital. Other hospitals had little institutional commitment to communication with the community and no public relations staff. At one hospital, several staff members recognized this as a problem and hoped to encourage greater communication in the future.

A few hospitals envisioned a role for the community in their projects. These were all projects that included planning. Community needs were assessed in the two strategic planning projects to determine what services were lacking and wanted by the community.

In one case the assessment was completed with the help of community liaison staff paid for by the grant. As a result of the assessment, well-attended health-education seminars have been offered by the grantee. Two grantees developed cooperative relationships with other providers in the area. In one, the outpatient mental health project, other providers of mental health were contacted to assess the area's needs for services so that appropriate services could be added using grant funds. In the second project, a coordinator for physician recruiting for the area's providers was hired under the grant, the coordinator worked closely with the area providers to develop an overall physician recruiting plan.

# C. PROJECT SUCCESSES AND PROBLEMS

One year after the grant awards, most of the grantees visited have made substantial progress in implementing their projects. By the time of the visits, patients were being served in all but 1 of the 11 projects that were adding or expanding services. Two of the three hospitals that planned to recruit physicians had both recruited some, but not all, the physicians required. Three of the four projects that included planning had achieved their first year goals. Nevertheless, the hospitals had encountered problems, and portions of several projects were delayed.

### Successes

Eleven grantees planned to introduce or enhance one or more inpatient or outpatient services. The four inpatient service projects--ventilator care, psychiatric care, a chemical dependency unit, and nursing home beds conversion--had negotiated the necessary approvals

and were all serving patients. After a slow start, the intended census has been achieved by the ventilator program. The nursing home beds are at 100 percent occupancy. The psychiatric and chemical dependency units have each served about 100 patients. Seven grantees have successfully added an outpatient service. Some of these projects trained existing staff (for example, nurse oncology training for the outpatient chemotherapy project and emergency medical technician training for enhancing emergency room services) and other projects have hired specialized staff (for example, a nurse practitioner to direct a Rural Health Clinic, and a psychiatrist for a psychiatric clinic).

Three projects planned to recruit physicians. One project which included recruiting as part of a multi-objective project has successfully recruited two physicians, a psychiatrist and a family practitioner. The project to enhance emergency services successfully recruited a family practitioner. The other recruiting project is using the grant funds to pay for a regional coordinator for physician hiring. The coordinator was hired and trained and has worked extensively with the local providers (overcoming considerable resistance) to develop a plan. The recruiting is in progress, although behind schedule.

Three projects with planning components have completed activities scheduled for the first year. One individual and one consortium project are using the grant to develop strategic plans. They have both undertaken needs assessments of the local communities (patients and businesses) using surveys, interviews and focus groups and have developed a set of priorities for continued planning in the second year. The consortium project obtained board approval for their objectives. The individual hospital was still awaiting approval for

implementing the plans. One hospital with multiple objectives was planning a community survey as part of its long-range planning process. After delays resulting from attending to other priorities, a survey instrument has been developed for fielding in the second year.

The most common reasons the hospital staff gave for these successes included having a supportive chief executive officer, excellent staff running the projects, good support from other hospital staff, and support from the community.

### 2. <u>Difficulties</u>

Despite the progress made in the grant projects, only four hospitals visited were on schedule with all aspects of their projects. Some hospitals have modified their goals. For example, the nursing home conversion project was allowed fewer nursing home beds by the State than they had requested (because of State control of new nursing home beds). The Rural Health Clinic has deferred an original plan to add a satellite clinic until the clinic at the hospital has been operating for several months. Two projects, the adult day care and the home health agency and assisted living complex planning project, are seriously delayed.

Earlier in their projects, when the grantees were trying to fill project coordinator positions there were delays in finding the right person. Most of these delays seemed to have been overcome after the first year. Additional delays and modified objectives resulted from bureaucratic problems (five projects), objections from local providers or hospital staff (four projects), lack of patient demand (two projects), and turnover of the chief executive officer or the project director (two projects). Other problems mentioned included higher costs of

operating a service than anticipated (one grantee) and difficulties gaining support from the community (one grantee). The two most common problems are discussed in more detail.

Bureaucratic Problems. Partly because of their lack of experience, and partly because of the complex regulations that must be identified and met to introduce a new hospital service, five grantees had been frustrated by bureaucratic problems. The bureaucratic problems encountered have either been overcome by patience, or alternative or modified approaches to the project have been followed to solve the problems. In all cases, these problems resulted in delays. The Rural Health Clinic project director spent a great deal of time trying to identify and fulfill the legal requirements for licensure, because she could not locate the HCFA and State agency personnel who were knowledgeable about the regulations governing rural health clinics. The hospital that planned to implement a home health service through a joint venture with an existing agency completed its planning before requesting HCFA approval (it might have been wiser to check with HCFA before spending time and funds on planning). The hospital was then turned down by the HCFA regional office because of a technical requirement that a branch of an existing home health agency cannot be located more than 40 miles from its headquarters. (The Conditions of Participation state that an agency must be "sufficiently close" so that the administration of the home health agency can be shared, which the HCFA regional office interpreted to mean 40 miles). As a result, the hospital is now planning to get its own license, an expense it had hoped not

to incur.<sup>5</sup> The nursing home conversion project found that its application to the State for nursing home bed approval went very slowly. The hospital requested 18 beds but received approval for 10 beds (and now has 100 percent occupancy and a waiting list of 6 patients). The project to enhance emergency room services had to overcome State objections to its plan to train paramedics (which has now been completed).

Lack of Provider and Staff Cooperation. Some of the hospitals overestimated local provider support for their project and have had to persevere or find alternative solutions to overcome provider resistance. One physician recruiting project, for example, has overcome the resistance of other local providers to sharing information about needs and possible financial incentives they could provide to new physicians by assigning a coordinator to work closely with these other providers. However, some elderly physicians in the area are still unwilling to cooperate in recruiting new physicians. The life-line (intensive care unit) ambulance project cannot get nurses to ride in the ambulance and has therefore had to rely on paramedics. The project had been planned without input from the nurses. The nursing home conversion project's local physicians initially were uncooperative, because there was already a local nursing home, but the physicians are now admitting to the converted beds and are enthusiastic about the project because the community prefers the hospital nursing home beds (which are in private rooms and are believed to provide higher quality care) to the beds available at the local nursing home.

<sup>&</sup>lt;sup>5</sup>This grantee was also having difficulty finding financing for its assisted living complex.

# D. IMPACTS OF THE GRANT PROGRAM ON THE HOSPITAL AND SURROUNDING COMMUNITY

A grant project may impact on the hospital directly, by changing utilization and revenues, or indirectly. For example, the management or board may change their organization or policies because of improved knowledge of community needs. Or again, the hospital's image in the community might be enhanced because of the popularity of the grant program, which might then increase hospital use. In addition, other local providers could be affected by the grant project. We asked the hospitals and other providers about the effects of the grant, recognizing that few projects could have had a large impact after only 1 year.

### 1. Effect on Financial Viability

As we indicated in Section A of this chapter, the financial soundness of these hospitals varies. Five appear to have long term problems, and all are somewhat vulnerable to even minor changes in the number of admitting physicians. The effect of the grant project on financial soundness is of great interest. Those projects that are adding services have the potential to add revenues immediately. Ten projects have added a service so far, but only two of these projects feel that they are already making money on the service. Two of the other hospitals that have added a service believe that their projects are unlikely to break even in the long run, and that the project will either have to end with the grant or remain as a subsidized service. The other hospitals (including those with planning projects) expect

that the projects will improve financial stability, some only in the short run, others in the long run. The positive effect of one new inpatient service was described as being due to its effect on overhead expenditures. The Rural Health Clinic is expected to assist finances by reducing uncompensated nonemergency care provided in the emergency room, although it did not expect to break even until it had been operating for a year.

# 2. Other Effects on the Grantee Hospitals

An almost universal comment was that the grant had boosted staff morale within the hospital (several administrators report that morale has been low because staff are underpaid or have had no raises recently). Several board members said that the grant has improved board morale by giving evidence that the hospital can make fruitful changes. Respondents at eight of the grantee hospitals believed that the grant project has improved the hospital in the eyes of the community and that this should increase utilization, and hence financial stability, in the long run. Many of these hospitals have elderly plant, many residents go elsewhere for services, and the community appeared to be surprised and pleased that their local hospital had won a grant in a competition, showing unsuspected initiative and ability. However, there has been virtually no measurable effect of the grant projects on community involvement with and support for the hospitals as yet.

Most of the hospitals described high commitments of management time during the early period of the grant project, but none of the grant projects have had long term effects on management (or the board of directors) time or structure. Two of the grantees whose projects are to develop strategic plans praised the opportunity provided by the grant to think about needs. They also spoke of the long term financial gains expected from improved use of space and expanded space, that will enable them to add services for which they currently have no room.

### 3. Effects on Local Providers

Most of the grant projects appear to have had a neutral or positive effect on other local providers. The positive effects mentioned at five hospitals derive from increases in communication and mutual referrals. For example, the physician recruitment project is offering to help other hospitals to recruit, thus overcoming poor relations in the past, and the inpatient psychiatric unit has increased the referrals to the local outpatient mental health provider. However, two of the grantees are adding a service that already exists in the community, potentially going into competition with another provider, and in one case negative effects have occurred. In the day care project, negative effects were averted when the hospital scaled back its intended program in order to avoid competing. The nursing home conversion project has caused a reduced census in the local nursing home, which has laid off staff as a result. The hospital had not considered this outcome when it planned the project, since it was concerned only with its own viability.

### Effects on Access

The grant projects that add or enhance a service or add a physician may affect access to care immediately. In the longer term, access may also be improved through the

introduction of needed services after a needs assessment and planning process. Indirectly access is improved through maintaining the hospital open and available to the local community. As we have seen, the immediate effects have been to provide new or enhanced services in 11 hospitals. In addition, three hospitals have recruited physicians who have added services to the area. At one hospital, the family practitioner recruited is providing obstetric services for the first time to Medicaid patients.

Most communities consider that the closure of the hospital would have disastrous effects on access to health care. The elderly, the poor, and the Medicaid population were mentioned as likely to suffer the most reduced access from hospital closure because of their transportation difficulties and the increased travel times that would result from closure. Almost everywhere, physicians said they would leave the area if the hospital closed, further reducing access to primary care. Emergency care and obstetric care were singled out as the most problematic losses (though obstetric care is already a service not provided in many rural hospitals). At one hospital which is only 5 miles from the nearest hospital, several respondents considered that access would not be diminished by closure. One of the grantees had in fact closed as an acute care hospital after applying for the grant. That facility is still providing primary care clinics 6 days a week, but emergency services are not available at night or on Sundays.

### E. GRANT FINANCIAL RECORDS

Another purpose of the site visits is to review the grant financial records to ensure that grant funds are being spent as reported to HCFA. This review includes checking that the amount of grant funds drawn down by the grantee agrees with HCFA's records and reviewing whether funds drawn down in advance of expenditures were deposited in an interest-bearing account. Capital items such as equipment are examined to see if they appear to be new and as described in grant reports and receipts. Copies of reports by consultants that were billed to the grant are requested. Records of payments to outside vendors (processed checks) are reviewed for unusual endorsements. We request a meeting with staff who are reported as having billed time to the grant and discuss their role on the project.

During these reviews, we have found no major discrepancies, such as capital items that are not present or staff who do not know that their time has been billed to the grant. However, we found that most grantees were unaware that there is a cap on the amount of interest that may be retained when advance funds are placed in an interest-bearing account. A few grantees have not set up a separate account for the grant, which made it harder to review the records. A few staff members were not interviewed because they had quit, but other staff members mentioned these staff by name, so we believe that they were legitimate charges to the grants.

## V. SUMMARY OF HOSPITAL PROGRESS AFTER ONE YEAR

One year after 181 hospitals were awarded Rural Health Care Transition grants, 171 of them are actively pursuing their projects. Five hospitals have completed their projects, three declined their grants (one of which continues with a second grant project), one hospital ceased to provide acute care, and one hospital grant was not renewed by HCFA. Only one hospital changed the scope of its project, which implies that 170 hospitals are still pursuing the projects that they originally proposed.

Based upon the self-report data from the grantees, the grantees appear to be making steady progress. We find that 54 percent of the grantees are on schedule, and 4 percent have completed their projects. The site visits confirm that the grantees are proceeding steadily. We found that 10 out of 11 projects were already providing patient services, 3 out of 4 projects had successfully recruited health care practitioners, and 1 out of 2 projects had incorporated the results of their planning into the hospital's strategic plan.

The factors facilitating implementation of the grant projects are the availability of the grant funds, the dedication of the hospital staff, successful coordination with other providers, and the successful recruitment of health care personnel. These four factors have been the primary reasons that the hospitals have been able to overcome the difficulties that they have encountered.

The grantees have spent most of the grant funds that were awarded to them for their first year. One third of the hospitals have been delayed and, as a result, had to carry their

award funds into the next fiscal year. The grantees have spent their grants primarily on personnel, contracts, and capital equipment, with limited amounts spent on supplies and travel.

It is still too early to tell how the grant program will affect access to care. Many hospitals have just finished the planning stages of their grants and are just beginning to act on the information that they learned during this stage. However, some programs have started to serve patients, providing local access to health care services that were previously unavailable. Other hospitals have recruited physicians who have begun to treat patients in the rural areas, again increasing access to local health care services. Whether these grant projects will actually affect the long run viability of the hospitals, and in turn affect access to health care in the long run, is still unknown.

### VI. 1990 GRANT SOLICITATION PROCESS AND APPLICANT CHARACTERISTICS

# A. SOLICITING AND SCORING THE APPLICATIONS AND SELECTING GRANTEES

To begin the solicitation process for the 1990 Rural Health Care Transition Grant program, HCFA sent letters and application materials to over 2,500 rural, nonprofit hospitals. To be eligible to receive a grant, a hospital had to be a non-Federal, nonproprietary, short-term, general acute care hospital with fewer than 100 beds and had to be classified as a rural hospital under Medicare's Prospective Payment System. In addition, all hospitals that were awarded a grant in 1989, and were expected to receive \$50,000 for their continuation in 1990, were ineligible for this solicitation. HCFA received 502 applications, 453 from individual hospitals and 49 from hospitals in consortia.

Applications were reviewed by technical panels and scored based on five criteria mandated by Congress. The scores were submitted to HCFA by the panels on June 15, 1990. The panel scores were then normalized using standard statistical techniques to account for panel variation.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup>P.L. 100-203, Sec 4005(e).

<sup>&</sup>lt;sup>2</sup>Details on the process can be found in "Evaluation of the Grant Program for Rural Health Transition: First Semi Annual Progress Report." Valerie Cheh, Andrea Baird, Deborah Garvey, and Judith Wooldridge. Mathematica Policy Research, Princeton, N.J., January 1990.

I'wo guidelines were followed in selecting the grant award winners: merit (as reflected by the proposal score) and ensuring an equitable distribution of funds across states. In order to meet both of these goals, HCFA used the same two-stage award process to select the 1990 grantees that was first used the previous year to select the 1989 grantees. Funds were allocated across states in proportion to the number of eligible hospitals. Within States, awards were made up to the ceiling based on merit. The remaining funds were awarded based on merit without regard to State. Because of the small number of applicants in some States, HCFA imposed the restriction that only those proposals that were deemed acceptable for award by the technical panels were actually awarded grants.

A total of 212 grants were awarded to 211 hospitals, for a total value of \$9,389,649. Just over \$7.2 million was awarded from the State pool, and just over \$1.9 million was awarded from the national pool. The 1990 Rural Health Care Transition grantees and their first year grant fund amounts are listed in Appendix A.

### B. GEOGRAPHIC DISTRIBUTION OF THE APPLICANTS

HCFA received 502 applications from 481 hospitals for the 1990 Rural Health Care Transition grants. Overall, just under 28 percent of the eligible hospitals applied for the grants.<sup>3</sup> Applications came from 43 of the 47 states with eligible hospitals. The highest application rate occurred in the North Central region of the country; 38 percent of the

<sup>&</sup>lt;sup>3</sup>Based on the 1,728 hospitals that were originally identified as eligible for the grants by HCFA in 1989. It does not account for hospitals that have already received grants, that as a result, are no longer eligible.

eligible hospitals in this census region submitted applications for the program. Within the West North Central division, the rate was even higher, 41 percent of eligible hospitals applied. (See Table VI.1.) In Iowa, Maryland, Nevada, North Dakota, South Dakota, and West Virginia, over 50 percent of the eligible hospitals submitted proposals. The largest number of proposals from any one State was 47 from Iowa; but Iowa has only the fourth largest number of eligible hospitals.

The lowest application rate occurred in the Northeastern region (17 percent of eligible hospitals); in the Middle Atlantic division only 15 percent of the eligible hospitals applied. None of the eligible hospitals in Alaska, Hawaii, Massachusetts or Puerto Rico applied for the grant program. Less than 10 percent of the eligible hospitals in Indiana, New York, and New Mexico applied for the program.

# C. COUNTY CHARACTERISTICS OF APPLICANTS AND GRANTEES

The success of the Grant Program for Rural Health Care Transition will be influenced by the health care environment. If the area characteristics of the grantees match those of all rural hospitals, then any success achieved under this program has the potential to be replicated in other rural areas. The areas where the 1989 grantees are located are representative of all rural hospitals. Because a similar selection process was used for the 1990 grantees, we expected and found that the 1990 grantees are from areas with similar social and economic characteristics.

TABLE VL1

NUMBER OF ELIGIBLE HOSPITALS AND NUMBER OF APPLICANTS FOR 1990 RURAL HEALTH CARE TRANSITION GRANTS

Census Division and State	Number of Eligible Rural Hospitals	Percent of Rural Hospitals Nationwide	Number of Proposals Received	Percent of Eligible Hospitals that Applied
New England				
Maine	17	.98	2	12
Massachusetts	3	.17	0	0
New Hampshire	9	.52	5	44 <sup>a</sup>
Vermont	10	.58	1	10
Total	39	2.26	8	21 <sup>a</sup>
Middle Atlantic				
New York	31	1.79	3	10
Pennsylvania	13	.75	4	31
Puerto Rico	4	.23	0	0
Total	48	2.78	7	15
South Atlantic				
Florida	19	1.10	4	21
Georgia	56	3.24	8	14
Maryland	3	.17	2	67
North Carolina	38	2.20	5	13
South Carolina	15	.87	5	33
Virginia	18	1.04	4	22
West Virginia	18	1.04	9	50
Total	167	9.66	37	22
East South Central				
Alabama	27	1.56	7	26
Kentucky	41	2.37	8	20
Mississippi	59	3.41	19	31 a
Tennessee	29	1.68	6	21
Total	156	9.03	40	26 a

Census Division and State	Number of Eligible Rural Hospitals	Percent of Rural Hospitals Nationwide	Number of Proposals Received	Percent of Eligible Hospitals that Applied
West South Central				
Arkansas	40	2.31	9	22
Louisiana	45	2.60	10	22
Oklahoma	63	3.65	15	24
Texas	169	9.78	37	21 a
Total	317	18.34	71	22 a
West North Central				
Iowa	77	4.46	47	56 a
Kansas	96	5.56	21	19 ª
Minnesota	92	5.32	37	40
Missouri	47	2.72	15	32
Nebraska	69	3.99	28	41
North Dakota	37	2.14	20	54
South Dakota	42	2.43	28	60 a
Total	460	26.62	196	41 a
East North Central				
Illnois	49	2.84	15	31
Indiana	32	1.85	2	6
Michigan	47	2.72	16	34
Ohio	28	1.62	6	21
Wisconsin	60	3.47	19	30 a
Total	216	12.50	58	27 a
Mountain				
Arizona	20	1.16	6	30
Colorado	41	2.37	10	22 a
Idaho	35	2.03	11	29 a
Montana	44	2.55	13	23 a
Nevada	10	.58	6	60
New Mexico	20	1.16	1	5
Utah	16	.93		12
Wyoming	14	.81	2 5	36
Total	200	11.57	54	25 a

TABLE VI.1 (continued)

Census Division and State	Number of Eligible Rural Hospitals	Percent of Rural Hospitals Nationwide	Number of Proposals Received	Percent of Eligible Hospitals that Applied
Pacific				
Alaska	13	.75	0	0
California	40	2.31	7	18
Hawaii	9	.52	0	0
Oregon	24	1.39	9	38
Washington	39	2.26	15	33 <sup>a</sup>
Total	125	7.23	31	23 <sup>a</sup>
TOTAL	1,728	100.00	502	28 <sup>a</sup>

a Some hospitals in these States (or divisions) submitted multiple proposals. The \*percent of eligible hospitals that applied\* column uses the unduplicated number of hospitals rather than the number of applicants.

Area characteristics are compared using four groups: (1) counties that have hospitals eligible for the program, (2) counties that have hospitals that applied for a grant in 1990, (3) counties that have hospitals that were awarded a grant in 1990, and (4) counties that have hospitals that were not awarded a grant in 1990.

## 1. Social and Economic Characteristics

The social and economic characteristics of areas with grant winners are virtually identical to those of hospitals that applied for but did not win a grant. However, there were a few differences between the area characteristics of eligible hospitals and applying hospitals. The result is that there are a few differences between the areas of eligible and grant-winning hospitals.

The typical 1990 grantee hospital was located in a county that had a slightly lower population density than the county of an eligible hospital. The 1990 grant winners had a population density of 22 persons per square mile compared to 25 persons per square mile among eligible hospitals. (See Table VI.2.)

The ethnic distribution of the population is also slightly different for the grantee hospitals than for the eligible hospitals. The 1990 grantees are located in counties that have a slightly smaller proportion of blacks and a slightly higher proportion of whites than the eligible hospitals.

<sup>&</sup>lt;sup>4</sup>See Appendix B for details on data sources.

TABLE VL2

SOCIAL AND ECONOMIC CHARACTERISTICS OF COUNTY: 1990 APPLICANTS

Characteristics	Eligible Hospitals	Grant Applicants	Funded Grants	Nonfunded Applicants
Demographic (Median Values)				
Population Density Per Square Mile <sup>a</sup>	24.8	21.4	21.8	21.2
Percent of Population 65 Years or Over <sup>b</sup>	14.3	15.1	15.0	15.1
Ethnic Composition <sup>b</sup> (Mean Values)				
Percent Black	6.7	5.3	4.7	5.7
Percent American Indian	1.7	1.6	1.8	1.4
Percent White	89.4	91.7	91.4	92.0
Economic Characteristics (Median Values)				
Annual Per Capita Income <sup>c</sup>	11,354	11,499	11,441	11,544
Unemployment Rated	7.6	7.1	7.1	7.1
Percent of Population 65 Years and Over in Poverty Status <sup>b</sup>	17.6	17.3	16.5	17.5
Health Status Indicators (Median Values)				
Five-Year Infant Mortality Rate (Per 1,000 Live Births) <sup>a</sup>	10.5	10.4	10.5	10.3
Mortality Ratef (Per 1,000)	10.4	10.6	10.5	10.8

a 1987 population estimates divided by land area in square miles.

<sup>&</sup>lt;sup>b</sup>1980 Census Data. Columns do not add to 100 percent because "other" ethnicities are not shown.

<sup>&</sup>lt;sup>6</sup>1986 per capita data from the 1969-1986 Local Area Personnel Income Tape, U.S. Department of Commerce, Bureau of Economic Analysis.

d 1987 Bureau of Labor Statistics.

a 1981-1985, National Center for Health Statistics.

 $<sup>^{</sup>f}$ Number of reported deaths in 1985 divided by 1985 population estimates, National Center for Health Statistics.

The economic status of the funded grant sites and eligible hospitals are virtually the same. The annual per capita incomes differ by less than 1 percent (\$11,441 for the grantee areas and \$11,354 for all eligible hospitals) and the unemployment rate differs by less than 7 percent (7.1 percent for grantee areas and 7.6 percent for all eligible hospitals).

Indicators of the area's health characteristics are virtually the same for the funded grant applicants and the eligible hospitals. The five-year infant mortality rate is 10.5 per thousand live births in both areas, and the median mortality rate is virtually identical with 10.5 per thousand in the grantee areas.

### 2. Access to Facilities

The data suggest that residents in the counties where grantee hospitals are located may have slightly more restricted access to health care than residents in the counties where eligible hospitals are located. The grantee areas have fewer hospital beds per person and fewer hospitals per square mile, as well as fewer Medicare inpatient days and outpatient visits per elderly resident. The nonfunded applicants, however, are in areas where there is relatively greater access to hospital services. Because the differences among grantee, nonfunded applicant, and eligible hospital areas are not very large (never exceeding 10 percent), the areas can be considered very similar in access to health care.

The county of the typical grantee hospital had 4.2 hospital beds per thousand population and 1.7 hospitals per thousand square miles. The counties of the eligible hospitals had slightly more facilities; they had a median of 4.5 hospital beds per thousand

and 1.9 hospitals per thousand square miles. The nonfunded applicants, however, had even more facilities available; the median number of hospital beds per thousand population was 5.3, and the median number of hospitals per thousand square miles was 2.0. (See Table VI.3.)

The typical grantee's county also had fewer Medicare inpatient days per person over age 65. The funded grant sites had a median of 4.4 inpatient days per elderly person, while the eligible hospitals had 4.8 days. Again, the nonfunded applicants had the greatest number of inpatient days per elderly person, with a median number of 5.1 days per elderly person.

The number of Medicare outpatient visits per elderly person was lower in the typical grantee hospital's county than it was in the typical eligible hospital's county. The funded grant counties had 5.0 outpatient visits per elderly person, while the eligible counties had 5.3 outpatient visits per elderly person. The nonfunded applicant counties had fewer outpatient visits per elderly person, perhaps because they had more hospital facilities and more inpatient utilization.

# 3. Health Professional Shortages

Access to health care is governed by availability of adequate health care professionals.

Approximately half of the 1990 grantees are located in areas that were designated as Primary

TABLE VI.3

COUNTY SUPPLY OF SERVICES AND FACILITIES: 1990 APPLICANTS

Characteristic	Eligible Hospitals	Grant Applicants	Funded Grants	Nonfunded Applicants
Number of Hospital Beds Per 1,000 Population <sup>a</sup>	4.5	4.8	4.2	5.3
Number of Hospitals Per 1,000 Square Miles	1.9	1.9	1.7	2.0
Medicare Inpatient Days Per Person Over 65 Years	4.8	4.7	4.4	5.1
Medicare Outpatient Visits Per Person Over 65 Years	5.3	4.7	5.0	4.5

SOURCE: Area Resource File.

\*From 1987 County Hospital file; Population Estimate (1987) from U.S. Bureau of Census.

Care Health Manpower Shortage Areas (HMSAs) in 1987. Table VI.4 shows that this proportion is similar for all eligible and applicant hospitals' counties. This high proportion of HMSA designated counties suggests that there is unmet need for physicians in all these areas.

Furthermore, 44 percent of the 1990 grantees are located in counties with a staffed National Health Service Corps (NHSC) site, slightly lower than the 47 percent of eligible hospitals, but very similar to the 44 percent of applicant hospitals.

# D. FEDERAL AND EXTERNAL FUNDING AND LOCAL COOPERATION

## 1. Federal Funding Amounts

Most of the 502 applicants for the Rural Health Care Transition grant program in 1990 applied for 3 years of funding. The applicants requested \$21,316,548 for their first year, \$20,440,064 for their second year, and \$18,316,669 for their third year. Funding requested for future years decreases because some hospitals plan to complete their projects in less than the 3 years and because some hospitals expect revenues from the project to increase over the 3-year year period, and thus expect to require lower Federal subsidies.

The funds requested exceeded the amount available for the program. As a result, HCFA used the selection process described earlier to choose the 1990 grantees. Just over \$9.3 million was awarded to 212 applicants for fiscal 1990. The majority of the grants were for \$50,000, but the smallest grant was for \$8,200. The largest amount awarded to a single project was \$269,239, which went to a consortium of nine hospitals.

TABLE VI.4

PERCENTAGE OF HOSPITALS LOCATED IN COUNTIES DESIGNATED AS PRIMARY CARE HEALTH MANPOWER SHORTAGE AREAS (HMSAS) IN 1987 AND WITH A NATIONAL HEALTH SERVICE CORPS (NHSC) SITE IN 1986: 1990 APPLICANTS

Characteristic	Eligible Hospitals	Grant Applicants	Funded Grants	Nonfunded Applicants
Percentage of Hospitals in Counties without HMSA Designation	50.7	49.8	51.7	48.3
Percentage of Hospitals in Counties with Partial or Whole County HMSA Designation	49.3	50.2	48.3	51.7
Percentage of Hospitals in Counties with a Staffed NHSC Site	47.1	44.0	43.6	44.3

SOURCE: Area Resource File.

## 2. External Funding

Rural Health Care Transition grant applicants are encouraged to seek external funding to complement the grant funds. Applicants are requested to report the amount of external funding promised for the project. The broad definition of external funding, the various methods used by hospitals to quantify "in-kind" support, and the softness of the funding commitment suggest caution in interpreting the data provided by the hospitals on external funding.

The typical sources of external funding proposed by the applicants are the hospital itself and the auxiliary associated with the hospital. Many hospitals indicated that they intended to supplement the grant funds with funds that they had already committed to the project, or with funds that would be committed if they received a grant. Typically, these nongrant monies were to be used to buy equipment needed for the project because the equipment costs exceed the one-third capital budget limit imposed by Congress on grant funds.

Another common source of external funding is revenue from the proposed project. Some hospitals showed detailed revenue projections and indicated that these revenues would be used to fund further project costs. Other hospitals just indicated that they expected that the revenues from the project would make up the difference between expected project costs and the amount requested from the Rural Health Care Transition grant program.

Some grantees were cautious about committing the hospital to funding the project. For example, one application stated that the board was contemplating a bond issue to fund the

renovation that was part of the project but emphasized that this would only take place if and when the present bond issue was completely paid. (This was expected to happen in late 1990.) The application also emphasized that local taxes would not be raised to support the project.

The extent of external financing was a factor considered by the technical panels in proposal evaluation. Hence having external funding increased the likelihood that the proposed project would receive Federal funds. The median value of external financing was \$70,980 for the funded grantees and \$50,000 for the other applicants. (See Table VI.5.) Eighteen of the funded proposals (or 8 percent) proposed no external financing, while 39 of the nonfunded applicants' proposals (13.5 percent) proposed no external financing.

### 3. Local Cooperation

One criterion set forth by Congress as a factor for evaluating the applicants was the amount of local cooperation demonstrated in the proposal. As we found in 1989, the applicants interpreted the term "local cooperation" variously. Many of the hospitals misunderstood the criterion and discussed cooperation between hospital staff members.<sup>5</sup> Two types of local cooperation were described: between the hospital and the community it is serving and between the applicant hospital and other health care providers.

<sup>&</sup>lt;sup>5</sup>These hospitals typically cited how long the administrative staff has worked together and provided letters from board members stating how enthusiastic they were about the grant project.

TABLE VI.5 EXTERNAL FINANCING OF FUNDED AND NONFUNDED PROPOSALS: 1990 APPLICANTS

Amount of Financing	Funded Proposals	Nonfunded Proposals
Median Value of External Financing	\$70,980	\$50,000
Maximum Value of External Financing	\$3,859,000	\$13,456,000
Number of Proposals with No External Financing	18	39
Number of Proposals	212	290

The method most frequently used to demonstrate community coordination was to append letters from members of the community which supported the hospital's project. Typically, these letters offered vague support of the project, although a few promised financial or in-kind donations. To demonstrate cooperation with other health care providers (usually outside the area), the hospitals appended letters such as from State health officials or medical schools stating that the proposed project was sound and pledging to help the hospital.

## E. COMPARISON OF 1989 AND 1990 APPLICANTS

The number of applicants for the Rural Health Transition Grants program dropped from 704 in 1989 to 502 in 1990. This drop was the result of three factors: first, the majority of the hospitals who received awards in 1989 were not eligible for an award in 1990; second, some of the hospitals that were eligible in 1989 closed during the year; and third, some 1989 applicants who were not awarded grants became discouraged and did not resubmit applications for 1990. The average grant funding requested per applicant per year fell from 1989 to 1990. The 1989 grantees requested an average of \$86,795 for a 2-year period, an average of \$43,398 per year. The average amount requested in 1990 was \$119,667 for a 3-year period, an average of \$39,889 per year. Because of the change in the program from 2 years to 3 years, the amount of grant money requested by 1990 grantees was only \$1 million less than the 1989 grantees requested; \$60,073,281 rather than \$61,103,804.

The geographic distribution of the applicants was very different in 1990 than in 1989. (See Table VI.6.) The proportion of applicants from the Northeast fell from 6 percent to 3 percent (with a large decrease in applications from New York State, in particular), and the proportion of applications from the South fell from 40 percent to 29 percent. The program was most popular in the North Central region of the country, where the proportion of applicants rose from 36 percent to 51 percent. This is partially attributed to the relatively large increase in the number of applications from Iowa and Minnesota.

Some of the area characteristics of the 1990 applicants differ slightly from the 1989 applicants. The typical 1990 applicant has slightly fewer people per square mile and a lower proportion of blacks in the county. These differences are due to the large shift in the distribution of the applications from the Northeast and South to the North Central region of the country. Otherwise, the 1990 and 1989 applicants are from areas with very similar characteristics. There is less than a 10 percent difference in the percentage of elderly living in the county, the 5-year infant mortality rate, the number of hospital beds per thousand population, and the percentage of hospitals in counties with HMSA designation.

# F. COMPARISON OF 1989 AND 1990 GRANTEES

Because the process used by HCFA to select the grantees considered the geographic distribution of eligible hospitals, the proportion of grants awarded by region did not change dramatically from 1989 to 1990 (with the exception of the Northeast region). Although the

<sup>&</sup>lt;sup>6</sup>Several state hospital associations in this region publicized the grant program.

TABLE VI.6

### COMPARISON OF THE AREA CHARACTERISTICS OF 1989 AND 1990 GRANT APPLICANTS (AT TIME OF AWARD)

	1989	1990
Number of Applicants	704	502
Percent Distribution by Region		
Northeast	6 %	3 %
North Central	36 %	51 %
South	40 %	29 %
West	18 %	17 %
Area Characteristics (medians)		
Population Density Per Square Mile	23.6	21.4
Percent of Population 65 Years and Over	14.3 %	15.1 %
Percent of Population Black	7.1 %	5.3 %
Annual Per Capita Income	\$11,166	\$11,499
Five Year Infant Mortality Rate (Per 1,000 Live Births)	10.4 %	10.4 %
Number of Hospital Beds Per 1,000 Population	4.4	4.8
Percentage of Hospitals in Counties with Full or Partial HMSA Designation	50.8 %	50.2 %

percent of the grantees in the Northeast declined from 8 percent to 3 percent and the proportion in the North Central region increased from 40 to 46 percent, the proportion of the grantees in the South and the West remained just about the same. (See Table VI.7.)

The shift in the distribution of grantees from the Northeast to the North Central region can be attributed to the shift in the number of winners drawn in the second stage from the national pool, in which only technical merit is considered in award selection. Last year, a high percentage of applicants from the Northeast won in this national pool, while this year a large proportion of applicants from the North Central region won in the national pool.

The area characteristics of the 1990 grantees are similar to those of the 1989 grantees.

The population density per square mile and the percentage of the population that is black are the only two factors that differ across the years. Again, the shift in the distribution of winners from the Northeast region to the North Central region accounts for this difference.

The 1990 grantees are pursuing projects with different objectives. Almost half of the 1990 grantees are pursuing projects with health professional recruitment objectives, while only 30 percent of the 1989 grantees are pursuing such projects (see Table I.1). The proportion of grantees developing a rural health care network increased from 26 percent in 1989 to 37 percent in 1990, while the proportion enhancing emergency or outpatient services fell from 70 percent to 24 percent. Nine percent of the 1990 grantees are using their funds to plan conversion to a rural primary care hospital compared to none in 1989. This change probably occurred because the 1990 application materials specifically mention this objective, as a result of a change in the statute, whereas the 1989 materials did not.

TABLE VI.7 COMPARISON OF 1989 AND 1990 GRANTEES (AT TIME OF AWARD)

	1989	1990
Number of Grantees	184	212
Average First Year Funding Amount	\$44,861.10	\$44,212.18
Percent Distribution by Region		
Northeast	8 %	3 %
North Central	40 %	46 %
South	34 %	33 %
West	19 %	18 %
rea Characteristics (medians)		
Population Density Per Square Mile	24.8	21.8
Percent of Population 65 Years and Over	14.4 %	15.0 %
Percent of Population Black	6.4 %	4.7 %
Annual Per Capita Income	\$11,271	\$11,441
Five Year Infant Mortality Rate (Per 1,000 Live Births)	10.3 %	10.5 %
Number of Hospital Beds Per 1,000 Population	4.9	4.2
Percentage of Hospitals in Counties with Full or Partial HMSA Designation	58 %	48 %

NOTE: Percentages may not add to 100 percent due to rounding error.

Despite the differences in the project objectives, the average amount awarded for the first year of the 1989 and 1990 projects is virtually the same. The average award made in 1989 was \$44,861, while the average made in 1990 was \$44,212, an amount close to the maximum amount of funding available.

The 1990 grantees are slightly smaller than the 1989 grantees. Seventy percent of the 1990 grantees have fewer than 50 licensed beds, compared to 65 percent of the 1989 grantees. The average number of beds per hospital is 45 for the 1990 grantees and 49 for the 1989 grantees. (See Table I.1).

Because smaller hospitals generally have lower occupancy rates, we expected the 1990 grantees to have lower occupancy rates than 1989 grantees. However, the 1990 grantees have slightly higher occupancy rates. The average occupancy rate for the 1990 grantees is 33 percent while the 1989 grantees average 31 percent.

# VII. ACTIVITIES FOR THE NEXT SIX MONTHS

#### A. MONITORING

As the 1989 grantees enter their second year, we will continue to monitor their progress through semi-annual reports, telephone follow-up, and site visits. The 1990 grantees will also be monitored through telephone contacts, semi-annual reports (the first is due in April 1991, covering the period September 15, 1990 to March 31, 1991), and site visits.

#### B. SITE VISITS

During the 1989 grantees' 2-year grant period, our plan is to visit 40 grantees, 10 of them twice. Fifteen visits have already been made (see Chapter IV) and five more will have been completed by the end of 1990. During the 1990 grantees' 3-year grant period, we plan to visit 10 grantees yearly, during each of their 3 years of operation.

During the next 6 months, we will select 1989 and 1990 grantees to be visited in 1991 and visit some of them starting in March 1991. We will select sites to represent different regions of the country, individual and consortium projects, projects that are doing well, projects that are having problems, and hospitals that are under different forms of management. The site visits will collect comprehensive information on the projects' successes and failures and the causes of these successes and failures. We will also examine the impact of the project on the hospital and surrounding community, as well as reviewing expenditure records and collecting data on the general conditions and problems facing rural hospitals.

# C. REPORT TO CONGRESS

The fourth report on the grant program will describe the progress of both 1989 and 1990 grantees from September 15, 1990, to March 31, 1991, based on hospital self-reports and site visits. It will discuss the continuing progress of the 1989 grantees, as well as the start-up successes and problems encountered by the 1990 grantees.

## REFERENCES

- Cheh, Valerie, Andrea Baird, Deborah Garvey, and Judith Wooldridge. "Evaluation of the Grant Program for Rural Health Care Transition: First Semi-Annual Progress Report." Mathematica Policy Research Inc., Princeton, N.J., January 5, 1990.
- U.S. Congress, Office of Technology Assessment. <u>Health Care in Rural America</u>, OTA-H-434. Washington D.C., U.S. Government Printing Office, September 1990.

## APPENDIX A

1990 RURAL HEALTH CARE TRANSITION GRANT WINNERS LISTED BY STATE

Funds Awarded under Grant Program for Rural Health Care Transition

HOSPITAL NAME FIRST YEAR FUNDING	LEVEL.
Vaughan Regional Medical Center 50000	
Booneville City Hospital   50000   Carroll General Hospital   50000   Lawrence Memorial Hospital   50000   Yell County Hospital   48000	
Carondelet Holy Cross Hospital 45000 Flagstaff Medical Center 50000 Havasu Samaritan Regional Hospital 50000 Navapache Hospital 45743 Page Hospital 50000	
Mayers Memorial Hospital Needles-Desert Communities Hospital Plumas District Hospital Southern Inyo Hospital Surprise Valley Community Hospital Southern Synthesis Sy	
Gunnison Valley Hospital 50000 St. Vincent General Hospital 50000	
Hardee Memorial Hospital 50000 Memorial Hospital - Flagler 50000	
Brooks County Hospital         50000           Charlton Memorial Hospital         49700           Grady General Hospital         50000           Mitchell County Hospital         50000	
Adair County Memorial Hospital Baum-Harmon Memorial Hospital 12500   12500	
Guttenberg Municipal Hospital 50000	

Funds Awarded under Grant Program for Rural Health Care Transition

STATE	HOSPITAL NAME	FIRST YEAR FUNDING LEVEL
IA IA IA IA IA IA IA IA IA	Kossuth County Hospital Lucas County Health Center Marengo Memorial Hospital Myrtue Memorial Hospital Northwest Iowa Health Center Osceola Community Hospital Saint Joseph Community Hospital Story City Memorial Hospital	30155 50000 50000 50000 12500 12500 30155 50000
ID ID ID ID	Benewah Community Hospital Gooding County Memorial Hospital Shoshone Medical Center Teton Valley Hospital	50000 50000 50000 34400
L L L	Carmi Township Hospital Gibson Community Hospital Hoopeston Community Memorial Hospital Paris Community Hospital	50000 49485 50000 48532
IN IN	Sarah D. Culbertson Memorial Hospital  Vermillion County Hospital	50000
KS KS KS KS KS KS KS	Clara Barton Hospital Graham County Hospital Hamilton County Hospital Kearny County Hospital Lindsborg Community Hospital Maude Norton Memorial City Hospital Sabetha Community Hospital	50000 50000 25000 25000 50000 48802 49960
KY KY KY	Berea Hospital Marshall County Hosp. & Long Term Care Facility Monroe County Medical Center	50000 50000 50000
LA LA LA LA	Jackson Parish Hospital North Claiborne Hospital South Cameron Memorial Hospital West Feliciana Parish Hospital	50000 50000 50000 50000
MD	McCready Memorial Hospital	47780
ME ME	C.A. Dean Memorial Hospital Cary Medical Center	50000 50000
MI MI MI MI	Carson City Hospital Clare Community Hospital Deckerville Community Hospital Francis A. Bell Memorial Hospital	50000 49953 29833 50000

Funds Awarded under Grant Program for Rural Health Care Transition

STATE	HOSPITAL NAME	FIRST YEAR FUNDING LEVEL
MI MI MI MI MI MI MI MI	Gerber Memorial Hospital Kalkaska Memorial Health Center Kelsey Memorial Hospital Marlette Community Hospital McKenzie Memorial Hospital Sheridan Community Hospital Tri-County Community Hospital United Memorial Hospital	50000 50000 50000 29833 29833 50000 50000
MN MN MN MN MN MN MN MN MN MN MN	Canby Community Hospital District #1 Fairmont Community Hospital Holy Trinity Hospital, Inc. Itasca Medical Center Mille Lacs Hospital Minnesota Valley Memorial Hospital North Pine Area Hospital Sioux Valley Hospital St. Peter Community Hosp & Health Care Ctr Tri-County Hospital United District Hospital and Home	50000 50000 50000 50000 50000 50000 50000 50000 50000 50000
MO MO MO MO MO	Dade County Memorial Hospital John Fitzgibbon Memorial Hospital Nevada City Hospital Ripley County Memorial Hospital St. Vincent's Hospital	50000 50000 50000 50000 50000 50000
MS MS MS MS MS	Choctaw County Medical Center Montfort Jones Memorial Hospital Tallahatchie General Hospital Tippah County Hospital Tyler Holmes Memorial Hospital	50000 50000 50000 50000 30000 50000
MT MT MT MT	Barrett Memorial Hospital Central Montana Medical Center Holy Rosary Hospital Marcus Daly Memorial Hospital	50000 50000 49500 50000
NC NC NC NC	Allegheny County Memorial Hospital Bladen County Hospital Montgomery Memorial Hospital Sloop Memorial Hospital	50000 50000 50000 50000
ND ND ND	Community Hospital in Nelson County Griggs County Hospital Jacobson Memorial Hospital Care Center	46360 8200 50000

Funds Awarded under Grant Program for Rural Health Care Transition

STATE	HOSPITAL NAME	FIRST YEAR FUNDING LEVEL
ND ND	McKenzie County Memorial Hospital St. Joseph's Hospital and Health Center	50000 50000
NE NE NE NE NE NE NE NE	Annie Jeffrey Memorial County Hospital Brodstone Memorial Nuckolls Cty Hosp Butler County Hospital Cheyenne County Hospital Assoc. Community Hospital & Nursing Garden County Hospital & Nursing Home Jefferson County Memorial Hospital, Inc.	50000 45501 49000 50000 50000 50000 50000
NH	The Memorial Hospital	50000
NM	Sierra Vista Hospital	50000
NV NV NV NV NV	Battle Mountain General Hospital Elko General Hospital Grover C. Dils Medical Center Mt. Grant General Hospital Nye Regional Medical Center William Bee Ririe Hospital	49900 49856 48886 48886 24636 24636
NY	Soldiers & Sailors Memorial Hospital	50000
OH OH OH OH	Adams County Hospital Defiance Hospital, Inc. Joel Pomerene Memorial Hospital Mercy Hospital of Tiffin, Ohio Mercy Hospital, Willard	50000 50000 50000 44350 44350
OK OK OK OK OK OK OK OK OK	Blackwell Regional Hospital Cimarron Memorial Hospital Craig General Hospital Creek Nation Community Hospital Cushing Regional Hospital Grove General Hospital Jefferson County Hospital Memorial Hospital OMH Medical Center, Inc. Pauls Valley General Hospital	50000 50000 50000 50000 50000 50000 50000 50000 50000 50000
OR OR OR OR OR	Hood River Memorial Hospital Mid-Columbia Medical Center Pacific Communities Hospital Pioneer Memorial Hospital St. Anthony Hospital	50000 50000 50000 50000 50000
PA	Barnes-Kasson County Hospital	50000

Funds Awarded under Grant Program for Rural Health Care Transition

STATE	HOSPITAL NAME	FIRST YEAR FUNDING LEVEL
SC	The Byerly Hospital	50000
SD SD SD SD SD SD SD SD SD SD SD SD	Belle Fourche Health Care Center Bennett County Community Hospital Community Memorial Hospital Custer Community Hospital, Inc. Faulk County Memorial Hospital Five Counties Hospital Hand County Memorial Hospital Hans P. Peterson Memorial Hospital Holy Infant Hospital, Inc. Marshall County Memorial Hospital Sturgis Community Health Care Center	22305 22305 50000 22305 50000 22305 50000 22305 50000 22305 50000 22305
TN TN	Baptist Hospital of Roane County Cocke County Baptist Hospital	50000 50000
TX TX TX TX TX TX	Bowie Memorial Hospital Brewster Memorial Hospital Clay County Memorial Hospital Colorado-Fayette Medical Center Culberson County Hospital Dallam-Hartley Hosp. Dist Coon Mem. Hosp.	50000 49941 50000 50000 19950 16666
TX TX TX TX	Eagle Lake Community Hospital Frio Hospital Association Hood General Hospital	46800 49980 50000
TX	Hutchison Co - Golden Plains Comm Hospital Hutchison Co - Golden Plains Comm Hospital	16666 33334
TX TX TX TX	Jackson County Hospital District Lynn County Hospital Memorial Hospital Moore County Hosp. Dist Memorial	43610 19950 10625 16666
TX	Hosp. Parmer County Community Hospital, Inc.	19950
TX TX TX TX TX TX TX TX	Pecos County Memorial Hospital Reeves County Hospital Seymour Hospital South Limestone Hospital Stonewall Memorial Hospital Throckmorton County Hospital Tyler County Hospital District	10625 10625 50000 50000 50000 35000 50000
TX TX	Ward Memorial Hospital Yoakum County	10625 19950

Funds Awarded under Grant Program for Rural Health Care Transition

STATE	HOSPITAL NAME	FIRST YEAR FUNDING LEVEL
UT	Duchesne County Hospital	50000
VA	Southampton Memorial Hospital	50000
VT	Grace Cottage Hospital, Inc.	50000
WA WA WA WA	Cascade Medical Center Columbia Basin Hospital Dayton General Hospital Tri-State Memorial Hospital	50000 50000 50000 50000
WI WI WI WI WI WI	Apple River Hospital, Inc. Berlin Memorial Hospital Chippewa Valley Hospital Memorial Hospital, Inc. Prairie du Chien Memorial Hospital St. Joseph's Memorial Hospital, Inc.	50000 50000 50000 50000 50000 49780
WV WV WV	Broaddus Hospital Association, Inc. Roane General Hospital Summers County Hospital	50000 50000 50000
WY	Community Hospital	20480

## APPENDIX B

AREA CHARACTERISTICS ANALYSIS: 1990 APPLICANTS

# AREA CHARACTERISTICS ANALYSIS: 1990 APPLICANTS

## A. IDENTIFYING THE SAMPLE

To make the comparisons in Chapter VI, four groups of hospitals were defined: (1) all eligible hospitals; (2) all applicant hospitals; (3) funded hospitals; and (4) nonfunded hospitals. The set of eligible hospitals was initially determined by HCFA to be 1,728.

It is nearly impossible to identify all eligible hospitals at any given point in time. Subsequently, comparisons were made between grant applicants and eligible hospitals, and it became apparent that 136 applicants did not appear on the HCFA list of eligible hospitals. These hospitals were eligible to apply under the regulations of the grant program. These 136 hospitals were added to the original list of 1,728 to make the final total of 1,864 eligible hospitals. This figure has been used as the total number of eligible hospitals whose area characteristics are compared in Chapter VI.

HCFA reviewed 502 applications for a grant in 1990. From this set, all multiple applications were identified, and a total of 481 unique hospitals were identified as having applied for a grant.

HCFA selected 212 applications to receive grant funding. Because one hospital (Golden Plains Community Hospital, TX) submitted two applications, both of which were selected for grant funding, 211 hospitals account for the 212 winning applications. These 211 hospitals comprise the set of funded grant hospitals.

 $<sup>^1\!</sup>G$  olden Plains Community Hospital's two applications were for funding that did not exceed the \$50,000 per year cap.

To determine the unduplicated set of nonfunded applicants, we began with the set of 290 losing applications. In the seven instances in which a hospital submitted both winning and losing proposals, the hospital was treated as a grant recipient for purposes of analysis, leaving 284 hospitals. The 14 hospitals which submitted two proposals, neither of which received grant awards, were each considered one unique observation. This produced a set of 270 nonfunded hospitals.

# B. DATA SOURCES FOR AREA CHARACTERISTICS ANALYSIS

The data used to analyze the area characteristics of grant applicants and eligible hospitals was obtained from the Area Resource File (ARF). Hospitals were matched to county characteristics contained in the ARF by the Federal Information Processing Standard (FIPS) code of the county in which the hospital is located.

The ARF data set did not match exactly to the hospital list for two reasons. First, ARF does not contain data on Alaskan counties. Hence, the Alaskan hospitals were matched on a statewide basis. Second, ARF does not include data on U.S. territories. Hence, the eligible and applying Puerto Rican hospitals were not included in the analysis.

## C. PER POPULATION ESTIMATES

In a number of instances in Chapter VI, information is presented on a "per population" basis. The population estimates used as the denominator in these variables are for the same year as the numerator variable.



